

#### ANALYTICAL REPORT

Lab Number: L1825822

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street Lawrence, MA 01843

Thomas McGrath

Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 07/24/18

ATTN:

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320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

 Lab Number:
 L1825822

 Report Date:
 07/24/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1825822-01	Q1 CAN ID 2290	AIR	Not Specified	07/08/18 11:05	07/09/18
L1825822-02	Q1 CAN ID 954	AIR	Not Specified	07/08/18 11:08	07/09/18
L1825822-03	B1 CAN ID 1638	AIR	Not Specified	07/08/18 11:48	07/09/18
L1825822-04	W1 CAN ID 1570	AIR	Not Specified	07/08/18 12:09	07/09/18
L1825822-05	H1 CAN ID 2290	AIR	Not Specified	07/08/18 12:58	07/09/18
L1825822-06	W2 CAN ID 1645	AIR	Not Specified	07/08/18 13:04	07/09/18
L1825822-07	BL CAN ID 2331	AIR	Not Specified	07/08/18 13:04	07/09/18



**Project Number:** 101869.00 **Report Date:** 07/24/18

#### **MADEP MCP Response Action Analytical Report Certification**

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
Α	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A res	A response to questions G, H and I is required for "Presumptive Certainty" status								
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO							
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES							
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES							

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1825822Project Number:101869.00Report Date:07/24/18

#### **Case Narrative**

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any guestions.



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#### **Case Narrative (continued)**

MCP Related Narratives

Canisters were released from the laboratory on July 5, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1825822-04 results for Acetone should be considered estimated due to co-elution with a non-target peak.

Sample Receipt

The canister ID number for the sample designated H1 CAN ID 2290 (L1825822-05) is listed on the CoC as 2290 but should be 2292.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative Date: 07/24/18

## **AIR**



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00 Lab Number:

L1825822

Report Date:

07/24/18

### **SAMPLE RESULTS**

Lab ID: L1825822-01

Client ID: Q1 CAN ID 2290 Date Collected: Date Received: 07/08/18 11:05 07/09/18

Sample Location:

Field Prep:

Not Specified

Sample Depth:

Matrix:

Air Anaytical Method: 101,TO15-SIM

Analytical Date:

07/22/18 08:41

Analyst:

MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	d Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.89	1.00		6.87	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.032	0.020		0.156	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 07/24/18

#### SAMPLE RESULTS

Lab ID: L1825822-01 Date Collected: 07/08/18 11:05
Client ID: Q1 CAN ID 2290
Date Received: 07/09/18

Client ID: Q1 CAN ID 2290 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Campio Bopan.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
Toluene	0.223	0.050		0.840	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.031	0.020		0.135	0.087			1
p/m-Xylene	0.093	0.040		0.404	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	0.215	0.020		0.915	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.035	0.020		0.152	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	13.2		ppbV		1
Cyclotrisiloxane, Hexamethyl-	12.3		ppbV		1
Unknown	1.12		ppbV		1
unknown siloxane	1.14		ppbV		1
Unknown	3.36		ppbV		1



**Project Number:** 101869.00 **Report Date:** 07/24/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 07/08/18 11:05

Client ID: Q1 CAN ID 2290 Date Received: 07/09/18

Sample Location: Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	1.19		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	140		60-140
bromochloromethane	129		60-140
chlorobenzene-d5	126		60-140



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1825822

Report Date:

07/24/18

#### **SAMPLE RESULTS**

Lab ID: L1825822-02 Client ID: Q1 CAN ID 954

Sample Location:

Date Collected:

07/08/18 11:08

Date Received:

07/09/18

Field Prep:

Not Specified

Sample Depth:

Matrix:

Air

Anaytical Method: Analytical Date: 101,TO15-SIM 07/21/18 22:53

Analyst:

MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	3.45	1.00		8.20	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.032	0.020		0.156	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.084	0.020		0.528	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 07/24/18

**SAMPLE RESULTS** 

Lab ID: L1825822-02 Date Collected: 07/08/18 11:08 Client ID: Q1 CAN ID 954

Date Received: 07/09/18 Sample Location: Field Prep: Not Specified

ppbV ug/m3						Dilution	
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
- Mansfield	Lab						
0.143	0.050		0.539	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
0.022	0.020		0.096	0.087			1
0.061	0.040		0.265	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
0.023	0.020		0.10	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	- Mansfield  0.143  ND  ND  ND  ND  ND  0.022  0.061  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results   RL    - Mansfield Lab     0.143	Results         RL         MDL           0.143         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            0.022         0.020            ND         0.050            ND         0.050            ND         0.050	Results         RL         MDL         Results           0.143         0.050          0.539           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           0.022         0.020          ND           0.061         0.040          0.265           ND         0.020          ND           ND         0.050          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           0.143         0.050          0.539         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           0.022         0.020          ND         0.087           0.061         0.040          0.265         0.174           ND         0.020          ND         0.087           ND         0.020          ND         0.085           ND         0.020          ND         0.137           0.023         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120	Results         RL         MDL         Results         RL         MDL           - Mansfield Lab         0.143         0.050          0.539         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.022         0.020          ND         0.087            0.061         0.040          0.265         0.174            ND         0.020          ND         0.087            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0	Results         RL         MDL         Results         RL         MDL         Qualifier           - Mansfield Lab         0.143         0.050          0.539         0.188             ND         0.020          ND         0.170             ND         0.020          ND         0.154             ND         0.020          ND         0.136             ND         0.100          ND         0.461             0.022         0.020          ND         0.461             0.022         0.020          ND         0.087             ND         0.040          0.265         0.174             ND         0.020          ND         0.087            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020 <td< td=""></td<>

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.31		ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.13		ppbV		1
Ethyl Alcohol	1.17		ppbV		1
Methyl Alcohol	1.46		ppbV		1



**Project Number:** 101869.00 **Report Date:** 07/24/18

**SAMPLE RESULTS** 

Lab ID: L1825822-02 Date Collected: 07/08/18 11:08

Client ID: Q1 CAN ID 954 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth: ppbV

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	87		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00

**Report Date:** 07/24/18

**SAMPLE RESULTS** 

Lab ID: L1825822-03 Date Collected: 07/08/18 11:48
Client ID: B1 CAN ID 1638 Date Received: 07/09/18

Client ID: B1 CAN ID 1638 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/22/18 09:20

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.80	1.00		6.65	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.034	0.020		0.166	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.060	0.020		0.377	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



07/08/18 11:48

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 07/24/18

**SAMPLE RESULTS** 

Lab ID: L1825822-03 Date Collected:

B1 CAN ID 1638 Client ID: Date Received: 07/09/18 Sample Location:

Field Prep: Not Specified

Campio Dopan.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab						
Toluene	0.124	0.050		0.467	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	0.054	0.040		0.235	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.020	0.020		0.087	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.19		ppbV		1
Silanol, Trimethyl-	3.68		ppbV		1
Methyl Alcohol	1.21		ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.99		ppbV		1



**Project Number:** 101869.00 **Report Date:** 07/24/18

**SAMPLE RESULTS** 

Lab ID: L1825822-03 Date Collected: 07/08/18 11:48

Client ID: B1 CAN ID 1638 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	140		60-140
bromochloromethane	133		60-140
chlorobenzene-d5	126		60-140



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00 Report Date: 07/24/18

**SAMPLE RESULTS** 

Lab ID: L1825822-04 Date Collected: 07/08/18 12:09 Client ID: W1 CAN ID 1570

Date Received: 07/09/18 Field Prep: Not Specified

Sample Depth:

Sample Location:

Matrix: Air

Anaytical Method: 101,TO15-SIM Analytical Date: 07/22/18 09:59

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
M - Mansfield	Lab						
ND	0.020		ND	0.051			1
ND	0.020		ND	0.078			1
3.36	1.00		7.98	2.38			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
0.034	0.020		0.166	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
0.120	0.100		0.383	0.319			1
0.058	0.020		0.365	0.126			1
ND	0.020		ND	0.092			1
ND	0.020		ND	0.134			1
ND	0.100		ND	0.360			1
ND	0.020		ND	0.107			1
ND	0.020		ND	0.091			1
ND	0.500		ND	2.05			1
ND	0.020		ND	0.091			1
ND	0.020		ND	0.109			1
	M - Mansfield  ND  ND  3.36  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results   RL	Results         RL         MDL           M - Mansfield Lab         ND         0.020            ND         0.020             ND         0.020             ND         0.500             ND         0.020             ND         0.020             ND         0.500             ND         0.020             ND         0.020 <t< td=""><td>Results         RL         MDL         Results           M - Mansfield Lab         ND         0.020          ND           ND         0.020          ND         ND           ND         0.020          ND</td></t<> <td>Results         RL         MDL         Results         RL           M - Mansfield Lab         ND         0.020          ND         0.051           ND         0.020          ND         0.078           3.36         1.00          ND         0.079           ND         0.020          ND         0.079           ND         0.500          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.081           ND         0.500          ND         0.721           ND         0.500          ND         0.079           0.034         0.020          ND         0.079           ND         0.020          ND         0.081           ND         0.020          ND         0.098           ND         0.020          ND         0.109</td> <td>Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         ND         0.020          ND         0.051            ND         0.020          ND         0.078            ND         0.020          ND         0.079            ND         0.020          ND         0.079            ND         0.500          ND         0.079            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.081            ND         0.020          ND         0.081            ND         0.020          ND         0.0721            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.109</td> <td>Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab         ND         0.020          ND         0.051             ND         0.020          ND         0.078             ND         0.020          ND         0.079             ND         0.500          ND         0.079             ND         0.500          ND         0.079             ND         0.020          ND         0.079             ND         0.020          ND         0.081             ND         0.020          ND         0.072             ND         0.020          ND         0.072             ND         0.020          ND         0.098             ND         0.020          ND         0.081         </td>	Results         RL         MDL         Results           M - Mansfield Lab         ND         0.020          ND           ND         0.020          ND         ND           ND         0.020          ND	Results         RL         MDL         Results         RL           M - Mansfield Lab         ND         0.020          ND         0.051           ND         0.020          ND         0.078           3.36         1.00          ND         0.079           ND         0.020          ND         0.079           ND         0.500          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.081           ND         0.500          ND         0.721           ND         0.500          ND         0.079           0.034         0.020          ND         0.079           ND         0.020          ND         0.081           ND         0.020          ND         0.098           ND         0.020          ND         0.109	Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         ND         0.020          ND         0.051            ND         0.020          ND         0.078            ND         0.020          ND         0.079            ND         0.020          ND         0.079            ND         0.500          ND         0.079            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.081            ND         0.020          ND         0.081            ND         0.020          ND         0.0721            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.109	Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab         ND         0.020          ND         0.051             ND         0.020          ND         0.078             ND         0.020          ND         0.079             ND         0.500          ND         0.079             ND         0.500          ND         0.079             ND         0.020          ND         0.079             ND         0.020          ND         0.081             ND         0.020          ND         0.072             ND         0.020          ND         0.072             ND         0.020          ND         0.098             ND         0.020          ND         0.081



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 07/24/18

SAMPLE RESULTS

Lab ID: L1825822-04 Date Collected: 07/08/18 12:09
Client ID: W1 CAN ID 1570 Date Received: 07/09/18

Client ID: W1 CAN ID 1570 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Campio Bopuii.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SI	M - Mansfield	Lab						
Toluene	0.275	0.050		1.04	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.049	0.020		0.213	0.087			1
p/m-Xylene	0.154	0.040		0.669	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.054	0.020		0.235	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	0.053	0.050		0.278	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.07		ppbV		1
Methyl Alcohol	1.24		ppbV		1
Ethyl Alcohol	1.17		ppbV		1



**Project Number:** 101869.00 **Report Date:** 07/24/18

**SAMPLE RESULTS** 

Lab ID: L1825822-04 Date Collected: 07/08/18 12:09

Client ID: W1 CAN ID 1570 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	133		60-140
bromochloromethane	128		60-140
chlorobenzene-d5	124		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 07/24/18

### SAMPLE RESULTS

Lab ID: L1825822-05 Date Collected: 07/08/18 12:58

Client ID: H1 CAN ID 2290 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/22/18 10:38

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.71	1.00		6.44	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.026	0.020		0.127	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.062	0.020		0.390	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00 Report Date: 07/24/18

**SAMPLE RESULTS** 

Lab ID: L1825822-05 Date Collected:

07/08/18 12:58 H1 CAN ID 2290 Client ID: Date Received: 07/09/18

Sample Location: Field Prep: Not Specified

Campio Bopaii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Toluene	0.172	0.050		0.648	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.023	0.020		0.10	0.087			1
p/m-Xylene	0.064	0.040		0.278	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.025	0.020		0.109	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier Units	RDL	Dilution Factor
Tentatively Identified Compounds				
Unknown	1.23	ppb\	/	1
Unknown	3.98	ppb\	/	1
Silanol, Trimethyl-	13.7	ppb\	/	1
Cyclotrisiloxane, Hexamethyl-	12.7	ppb\	1	1
Methyl Alcohol	1.19	ppb\	/	1



**Project Number:** 101869.00 **Report Date:** 07/24/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 07/08/18 12:58

Client ID: H1 CAN ID 2290 Date Received: 07/09/18
Sample Location: Field Prop. Not Specified

Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
unknown siloxane	1.17		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	135		60-140
bromochloromethane	129		60-140
chlorobenzene-d5	125		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 07/24/18

### SAMPLE RESULTS

Lab ID: L1825822-06 Date Collected: 07/08/18 13:04

Client ID: W2 CAN ID 1645 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/22/18 11:17

Analyst: MB

	ppbV ug/m3		Dilution					
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	3.35	1.00		7.96	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.031	0.020		0.151	0.098			1
1,2-Dichloroethane	0.026	0.020		0.105	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: BAW - WEYMOUTH FORE RIVER Lai

Project Number: 101869.00

Lab Number:

L1825822

**Report Date:** 07/24/18

### **SAMPLE RESULTS**

Lab ID: L1825822-06
Client ID: W2 CAN ID 1645

Sample Location:

Date Collected: 07/08/18 13:04

Date Received: 07/09/18
Field Prep: Not Specified

сатрю ворит.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.194	0.050		0.731	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.036	0.020		0.156	0.087			1
p/m-Xylene	0.106	0.040		0.460	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.040	0.020		0.174	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	2.54		ppbV		1
Cyclotrisiloxane, Hexamethyl-	4.01		ppbV		1
Methyl Alcohol	1.34		ppbV		1
Ethyl Alcohol	1.04		ppbV		1
Unknown	1.73		ppbV		1



**Project Number:** 101869.00 **Report Date:** 07/24/18

SAMPLE RESULTS

Lab ID: L1825822-06 Date Collected: 07/08/18 13:04

Client ID: W2 CAN ID 1645 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Piela Piep.

Sample Depth: ppbV

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	130		60-140
bromochloromethane	126		60-140
chlorobenzene-d5	119		60-140



**Project Number:** 101869.00 **Report Date:** 07/24/18

#### **SAMPLE RESULTS**

Lab ID: Date Collected: 07/08/18 13:04

Client ID: BL CAN ID 2331 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 16:20

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SI	M - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	ND	1.00		ND	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 07/24/18

SAMPLE RESULTS

Lab ID: L1825822-07 Date Collected: 07/08/18 13:04

Client ID: BL CAN ID 2331 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.26		ppbV		1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1825822

Project Number: Report Date: 101869.00 07/24/18

SAMPLE RESULTS

Lab ID: L1825822-07 Date Collected: 07/08/18 13:04

Client ID: **BL CAN ID 2331** Date Received: 07/09/18 Sample Location: Not Specified

Field Prep:

Sample Depth:

ppbV ug/m3 Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	102		60-140



**Project Name:** BAW - WEYMOUTH FORE RIVER Lab Number: L1825822

**Project Number:** 101869.00 **Report Date:** 07/24/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 15:00

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	138152-	-4	
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1



**Project Name:** BAW - WEYMOUTH FORE RIVER Lab Number: L1825822

**Project Number:** 101869.00 **Report Date:** 07/24/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 15:00

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	138152-	-4	
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1825822

**Project Number:** 101869.00 **Report Date:** 07/24/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 15:00

		ppbV		ι			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batch	: WG1	138152-4	4	
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L182

L1825822

**Report Date:** 07/24/18

arameter	LCS %Recovery	Qual	LCSE %Recov		Qual	%Recovery Limits	RPD	Qual	RPD Limits
CP Volatile Organics in Air by SIM - Mar	nsfield Lab Associa	ated sample(s):	01-07	Batch:	WG113815	2-3			
Propylene	137	Q	-			70-130	-		
Dichlorodifluoromethane	105		-			70-130	-		
Chloromethane	89		-			70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	88		-			70-130	-		
Vinyl chloride	98		-			70-130	-		
1,3-Butadiene	89		-			70-130	-		
Bromomethane	90		-			70-130	-		
Chloroethane	93		-			70-130	-		
Ethyl Alcohol	103		-			70-130	-		
Vinyl bromide	83		-			70-130	-		
Acetone	98		-			50-150	-		
Trichlorofluoromethane	108		-			70-130	-		
iso-Propyl Alcohol	85		-			70-130	-		
1,1-Dichloroethene	101		-			70-130	-		
tert-Butyl Alcohol <sup>1</sup>	87		-			70-130	-		
Methylene chloride	87		-			70-130	-		
3-Chloropropene	119		-			70-130	-		
Carbon disulfide	78		-			70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	86		-			70-130	-		
trans-1,2-Dichloroethene	114		-			70-130	-		
1,1-Dichloroethane	115		-			70-130	-		
Methyl tert butyl ether	102		-			70-130	-		
Vinyl acetate	119		-			70-130	-		

# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1825822

**Report Date:** 07/24/18

'arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mar	nsfield Lab Associa	ated sample(s):	01-07	Batch:	WG11381	152-3			
2-Butanone	114		-			70-130	-		
cis-1,2-Dichloroethene	118		-			70-130	-		
Ethyl Acetate	118		-			70-130	-		
Chloroform	116		-			70-130	-		
Tetrahydrofuran	115		-			70-130	-		
1,2-Dichloroethane	128		-			70-130	-		
n-Hexane	117		-			70-130	-		
1,1,1-Trichloroethane	124		-			70-130	-		
Benzene	95		-			70-130	-		
Carbon tetrachloride	119		-			70-130	-		
Cyclohexane	114		-			70-130	-		
Dibromomethane <sup>1</sup>	101		-			70-130	-		
1,2-Dichloropropane	112		-			70-130	-		
Bromodichloromethane	117		-			70-130	-		
1,4-Dioxane	121		-			50-150	-		
Trichloroethene	103		-			70-130	-		
2,2,4-Trimethylpentane	126		-			70-130	-		
cis-1,3-Dichloropropene	96		-			70-130	-		
4-Methyl-2-pentanone	126		-			70-130	-		
trans-1,3-Dichloropropene	107		-			70-130	-		
1,1,2-Trichloroethane	113		-			70-130	-		
Toluene	93		-			70-130	-		
2-Hexanone	110		-			70-130	-		

# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1825822

**Report Date:** 07/24/18

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
CP Volatile Organics in Air by SIM - Mansfi	eld Lab Associa	ated sample(s):	01-07	Batch:	WG11381	52-3			
Dibromochloromethane	104		-			70-130	-		
1,2-Dibromoethane	87		-			70-130	-		
Tetrachloroethene	91		-			70-130	-		
Chlorobenzene	87		-			70-130	-		
Ethylbenzene	100		-			70-130	-		
p/m-Xylene	100		-			70-130	-		
Bromoform	102		-			70-130	-		
Styrene	89		-			70-130	-		
1,1,2,2-Tetrachloroethane	101		-			70-130	-		
o-Xylene	101		-			70-130	-		
1,2,3-Trichloropropane <sup>1</sup>	90		-			70-130	-		
Bromobenzene <sup>1</sup>	90		-			70-130	-		
1,3,5-Trimethylbenzene	96		-			70-130	-		
1,2,4-Trimethylbenzene	101		-			70-130	-		
Benzyl chloride	123		-			70-130	-		
1,3-Dichlorobenzene	100		-			70-130	-		
1,4-Dichlorobenzene	99		-			70-130	-		
1,2-Dichlorobenzene	86		-			70-130	-		
1,2,4-Trichlorobenzene	113		-			50-150	-		
Naphthalene	110		-			50-150	-		
1,2,3-Trichlorobenzene	109		-			70-130	-		
Hexachlorobutadiene	114		-			50-150	-		



BAW - WEYMOUTH FORE RIVER L1825822

Project Number: 101869.00 Report Date: 07/24/18

### **Canister and Flow Controller Information**

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check				Flow Out mL/min	Flow In mL/min	% RPD
L1825822-01	Q1 CAN ID 2290	0425	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.1	6
L1825822-01	Q1 CAN ID 2290	2290	6.0L Can	07/05/18	269078	L1825047-01	Pass	-29.7	-6.3	-	-	-	-
L1825822-02	Q1 CAN ID 954	0531	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.4	3
L1825822-02	Q1 CAN ID 954	954	6.0L Can	07/05/18	269078	L1825047-03	Pass	-29.7	-8.9	-	-	-	-
L1825822-03	B1 CAN ID 1638	01067	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.6	9
L1825822-03	B1 CAN ID 1638	1638	6.0L Can	07/05/18	269078	L1825221-01	Pass	-29.7	-3.7	-	-	-	-
L1825822-04	W1 CAN ID 1570	01074	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.4	3
L1825822-04	W1 CAN ID 1570	1570	6.0L Can	07/05/18	269078	L1824952-02	Pass	-29.7	-6.7	-	-	-	-
L1825822-05	H1 CAN ID 2290	0420	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.8	14
L1825822-05	H1 CAN ID 2290	2292	6.0L Can	07/05/18	269078	L1825047-02	Pass	-29.7	-3.4	-	-	-	-
L1825822-06	W2 CAN ID 1645	0365	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.3	0
L1825822-06	W2 CAN ID 1645	1645	6.0L Can	07/05/18	269078	L1824952-01	Pass	-29.7	-6.8	-	-	-	-
L1825822-07	BL CAN ID 2331	8000	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.5	6
L1825822-07	BL CAN ID 2331	2331	6.0L Can	07/05/18	269078	L1825221-02	Pass	-29.7	-29.5	-	-	-	-



Project Name:

L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

### **Air Canister Certification Results**

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 20:46

Analyst: MB

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
,1-Dichloroethene	ND	0.200		ND	0.793			1



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

### **Air Canister Certification Results**

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1824952

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location: Field Prep:

оатріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1824952

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

**Air Canister Certification Results** 

Lab ID: L1824952-01

Date Collected: Client ID: **CAN 1645 SHELF 43** Date Received:

Sample Location:

06/29/18 Field Prep: Not Specified

06/29/18 08:30

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	79		60-140



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 20:46

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Заттріе Беріті.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Campic Deptin.								
• •		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	78		60-140



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 21:18

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
rans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
/inyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Fetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
ert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

оатре Берт.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	b							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1824952

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: **CAN 1570 SHELF 44** Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	80		60-140



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 21:18

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	ND         0.200           ND         0.200           ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         1.00           ND         0.500           ND         0.500           ND         0.500           ND         0.050           ND         0.050           ND         0.020           ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.500          ND         0.020            ND         0.050          ND         0.020            ND         0.020          ND         0.020	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1824952

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Deptil.		nnh\/			ualm2			<b>D</b> !! 4!
Parameter	Results	ppbV RL	MDL	Results	ug/m3 RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - M			IIIDE					
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1824952

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Campic Deptin.								
• •		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	79		60-140



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: **CAN 2290 SHELF 56** Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 19:08

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: CAN 2290 SHELF 56 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Запре Бериі.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: CAN 2290 SHELF 56 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: CAN 2290 SHELF 56 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825047

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: **CAN 2290 SHELF 56** Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140



Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

L1825047 **Project Number:** CANISTER QC BAT Report Date: 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: **CAN 2290 SHELF 56** Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 19:08

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: CAN 2290 SHELF 56 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



06/29/18 16:00

Date Collected:

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825047

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-01

Client ID: CAN 2290 SHELF 56 Date Received:

06/30/18 Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 19:41

	ppbV		ug/m3			-	Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825047

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: **CAN 2292 SHELF 57** Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	77		60-140



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 19:41

ppbV		ug/m3				Dilution	
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	ND         0.200           ND         0.200           ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         1.00           ND         0.500           ND         0.500           ND         0.500           ND         0.050           ND         0.050           ND         0.020           ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.500          ND         0.020            ND         0.050          ND         0.020            ND         0.020          ND         0.020	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

L1825047-02 Lab ID:

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825047

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Campic Deptin.								
• •		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	77		60-140



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: **CAN 954 SHELF 58** Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 20:13

		ppbV			ug/m3		_	Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: CAN 954 SHELF 58 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: CAN 954 SHELF 58 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: **CAN 954 SHELF 58** Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825047

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

**Air Canister Certification Results** 

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: CAN 954 SHELF 58 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria		
1,4-Difluorobenzene	84		60-140		
Bromochloromethane	85		60-140		
chlorobenzene-d5	77		60-140		



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

## **Air Canister Certification Results**

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: **CAN 954 SHELF 58** Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 20:13

		Vdqq		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825047

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: **CAN 954 SHELF 58** Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825047

Project Number: CANISTER QC BAT Report Date: 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825047-03

Client ID: CAN 954 SHELF 58

Sample Location:

Date Collected:

06/29/18 16:00

Date Received:

06/30/18

Field Prep: Not Specified

Campic Doptii.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	76		60-140



L1825221

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: **CAN 1638 SHELF 47** Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/02/18 19:03

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825221

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: CAN 1638 SHELF 47 Date Received: 07/02/18

Sample Location: Field Prep:

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: CAN 1638 SHELF 47 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: CAN 1638 SHELF 47 Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825221

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: **CAN 1638 SHELF 47** Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	85		60-140



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: **CAN 1638 SHELF 47** Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/02/18 19:03

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: CAN 1638 SHELF 47 Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825221

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-01

Date Collected: Client ID: CAN 1638 SHELF 47

Date Received: 07/02/18 Field Prep: Not Specified

07/02/18 10:00

Sample Depth:

Sample Location:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	86		60-140



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: **CAN 2331 SHELF 48** Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/02/18 19:36

Analyst: MB

		ppbV		ug/m3		Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825221

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: **CAN 2331 SHELF 48** Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	84		60-140



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: **CAN 2331 SHELF 48** Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/02/18 19:36

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825221

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825221

**Project Number:** CANISTER QC BAT Report Date: 07/24/18

# **Air Canister Certification Results**

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1825822

**Project Number:** 101869.00 **Report Date:** 07/24/18

# Sample Receipt and Container Information

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal

N/A Absent

Container Info	rmation				Temp			Frozen			
Container ID	Container Type	Cooler	рH	рН	deg C	Pres	Seal	Date/Time	Analysis(*)		
L1825822-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)		
L1825822-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)		
L1825822-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)		
L1825822-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)		
L1825822-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)		
L1825822-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)		
L1825822-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)		



**Project Name:** Lab Number: BAW - WEYMOUTH FORE RIVER L1825822 **Project Number:** 101869.00 **Report Date:** 07/24/18

### GLOSSARY

## Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

**EMPC** - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case

estimate of the concentration.

**EPA** - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for

which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

**RPD** - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the

precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEO - Toxic Equivalent: The measure of a sample is toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound

list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

#### **Footnotes**

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1825822Project Number:101869.00Report Date:07/24/18

#### Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- $\label{eq:MCPCAM} \textbf{M} \qquad \text{-Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.}$
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- **ND** Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1825822Project Number:101869.00Report Date:07/24/18

## REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

## **LIMITATION OF LIABILITIES**

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

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ID No.:17873

## Certification Information

## The following analytes are not included in our Primary NELAP Scope of Accreditation:

## Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: DW: Bromide EPA 6860: SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

## **Mansfield Facility**

**SM 2540D: TSS** 

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

#### The following analytes are included in our Massachusetts DEP Scope of Accreditation

#### Westborough Facility:

#### **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

#### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-B, E, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM450P-B, EPA 351.1, SM4500P-B, EPA 351.1, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.

## **Mansfield Facility:**

## **Drinking Water**

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

## Non-Potable Water

**EPA 200.7**: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

Serial No:07241814:04 ALPHA Job #: 4825822 AIR ANALYSIS Date Rec'd in Lab: 7/15/18 OF **CHAIN OF CUSTODY Billing Information** Report Information - Data Deliverables **Project Information** 320 Forbes Blvd, Mansfield, MA 02048 Fare River ☐ Same as Client info PO# Project Name: TEL: 508-822-9300 FAX: 508-822-3288 ☐ FAX ☐ ADEx Client Information Project Location: Criteria Checker: (Default based on Regulatory Criteria Indicated) Client: Project #: Other Formats: Deci munt Sha Project Manager Regulatory Requirements/Report Limits Address □ EMAIL (standard pdf report) ☐ Additional Deliverables: Program Res / Comm State/Fed ALPHA Quote #: Report to: (if different than Project Manager) **Turn-Around Time** Phone Fax: Standard RUSH (only confirmed if pre-approved!) ANALYSIS Date Due: Time: These samples have been previously analyzed by Alpha Other Project Specific Requirements/Comments: Project-Specific Target Compound List: Fixed Gases TO.15 SIM All Columns Below Must Be Filled Out 70.15 ALPHA Lab ID COLLECTION ID-Flow Sample Sampler's ID End Date Start Time End Time Vacuum Vacuum Sample ID Sample Comments (i.e. PID) (Lab Use Only) Matrix\* Initials Size Can Controller 5822-01 -02 -03 -04 66 2290 -6 06 -0 AA = Ambient Air (Indoor/Outdoor) Please print clearly, legibly and \*SAMPLE MATRIX CODES SV = Soil Vapor/Landfill Gas/SVE Container Type completely. Samples can not be Other = Please Specify logged in and turnaround time clock will not start until any ambi-Date/Time: Received By: guities are resolved. All samples 7/9/18 1305 submitted are subject to Alpha's Terms and Conditions. Type one Gag. AAL See reverse side. 7/10/18 20:01 Page 96 of 97

- 4			Fore River Study F	ield Form 6/2018			(1)
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							W2 = Embridge Site
	-						B1 = BELD Property
7							Q1 = Clement O'Brien Tower



## ANALYTICAL REPORT

Lab Number: L1827087

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 07/30/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Number: 101869.00

 Lab Number:
 L1827087

 Report Date:
 07/30/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1827087-01	Q1-713-01	AIR	WEYMOUTH QUINCY	07/14/18 10:49	07/16/18
L1827087-02	Q1-713-02	AIR	WEYMOUTH QUINCY	07/14/18 10:51	07/16/18
L1827087-03	B1-713	AIR	WEYMOUTH QUINCY	07/14/18 11:23	07/16/18
L1827087-04	W1-713	AIR	WEYMOUTH QUINCY	07/14/18 11:43	07/16/18
L1827087-05	H1-713	AIR	WEYMOUTH QUINCY	07/14/18 12:05	07/16/18
L1827087-06	W2-713	AIR	WEYMOUTH QUINCY	07/14/18 12:38	07/16/18
L1827087-07	BLANK-713	AIR	WEYMOUTH QUINCY	07/14/18 00:00	07/16/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087

**Project Number:** 101869.00 **Report Date:** 07/30/18

## **MADEP MCP Response Action Analytical Report Certification**

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A res	A response to questions G, H and I is required for "Presumptive Certainty" status							
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO						
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES						
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES						

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



**Project Name: BAW - WEYMOUTH FORE RIVER** Lab Number: L1827087 07/30/18

**Project Number:** 101869.00 **Report Date:** 

## **Case Narrative**

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

## HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.



Serial\_No:07301818:23

Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1827087Project Number:101869.00Report Date:07/30/18

## **Case Narrative (continued)**

MCP Related Narratives

Canisters were released from the laboratory on July 12, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

Volatile Organics in Air

The WG1138152-3 LCS recovery for propylene (137%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Galle Por Elizabeth Porta

Authorized Signature:

Title: Technical Director/Representative

Date: 07/30/18



# **AIR**



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

## **SAMPLE RESULTS**

Lab ID: L1827087-01 Client ID: Q1-713-01

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 10:49
Date Received: 07/16/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 17:38

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.73	1.00		6.49	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.034	0.020		0.166	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.084	0.020		0.528	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

## SAMPLE RESULTS

Lab ID: L1827087-01 Client ID: Q1-713-01

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 10:49

Date Received: 07/16/18
Field Prep: Not Specified

Results M - Mansfield	RL	MDL	Results	RL			Factor
ທ - Mansfield			itosuits	KL	MDL	Qualifier	Facion
	Lab						
0.103	0.050		0.388	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
0.051	0.040		0.222	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	0.103  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	0.103       0.050         ND       0.020         ND       0.020         ND       0.100         ND       0.100         ND       0.020         0.051       0.040         ND       0.020         ND       0.050         ND       0.050	0.103       0.050          ND       0.020          ND       0.020          ND       0.100          ND       0.100          ND       0.020          ND       0.050          ND       0.050	0.103       0.050        0.388         ND       0.020        ND         ND       0.020        ND         ND       0.020        ND         ND       0.100        ND         ND       0.020        ND         0.051       0.040        0.222         ND       0.020        ND         ND       0.050        ND	0.103       0.050        0.388       0.188         ND       0.020        ND       0.170         ND       0.020        ND       0.154         ND       0.020        ND       0.136         ND       0.100        ND       0.461         ND       0.020        ND       0.087         0.051       0.040        0.222       0.174         ND       0.020        ND       0.207         ND       0.020        ND       0.085         ND       0.020        ND       0.137         ND       0.020        ND       0.120         ND       0.020        ND       0.120         ND       0.020        ND       0.120         ND       0.050        ND       0.371         ND       0.050        ND       0.262	0.103         0.050          0.388         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            0.051         0.040          0.222         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120	0.103       0.050        0.388       0.188          ND       0.020        ND       0.170          ND       0.020        ND       0.154          ND       0.020        ND       0.136          ND       0.100        ND       0.461          ND       0.020        ND       0.087          0.051       0.040        0.222       0.174          ND       0.020        ND       0.207          ND       0.020        ND       0.085          ND       0.020        ND       0.137          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.020        ND       0.371          ND       0.050        ND       0.362          ND

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	35.6		ppbV		1
Silanol, Trimethyl-	2.53		ppbV		1
Unknown	1.81		ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.83		ppbV		1



101869.00

Lab Number:

L1827087

Report Date:

07/30/18

# **SAMPLE RESULTS**

Lab ID: Client ID:

Project Number:

L1827087-01 Q1-713-01

Sample Location: WEYMOUTH QUINCY

Date Collected:

07/14/18 10:49

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results

ppbV RL ug/m3 Its RL

MDL Qualifier

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

MDL

Units

Results

RDL

Dilution Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	103		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	103		60-140



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

## **SAMPLE RESULTS**

Lab ID: L1827087-02 Client ID: Q1-713-02

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 10:51
Date Received: 07/16/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 18:17

Analyst: MB

	PpbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.57	1.00		6.10	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.031	0.020		0.151	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.083	0.020		0.522	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

## **SAMPLE RESULTS**

Lab ID: L1827087-02 Client ID: Q1-713-02

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 10:51

Date Received: 07/16/18
Field Prep: Not Specified

Campio Dopaii.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SII	M - Mansfield	Lab						
Toluene	0.107	0.050		0.403	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	0.044	0.040		0.191	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.020	0.020		0.087	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Total about 15 of Comments	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds  Methyl Alcohol	35.2		yddd		1



Project Number: 101869.00 Lab Number:

L1827087

Report Date:

07/30/18

SAMPLE RESULTS

Lab ID:

L1827087-02

Client ID:

Q1-713-02

Sample Location:

WEYMOUTH QUINCY

Date Collected:

07/14/18 10:51

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** 

ppbV RL Results

MDL

ug/m3 RL Results

Qualifier MDL

Dilution **Factor** 

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

Units

RDL

Dilution **Factor** 

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	93		60-140



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

### **SAMPLE RESULTS**

Lab ID: L1827087-03

Client ID: B1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 11:23
Date Received: 07/16/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 18:57

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.78	1.00		6.60	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.048	0.020		0.234	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.083	0.020		0.522	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

### **SAMPLE RESULTS**

Lab ID: L1827087-03

Client ID: B1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 11:23

Date Received: 07/16/18
Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.115	0.050		0.433	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.020	0.020		0.087	0.087			1
o/m-Xylene	0.054	0.040		0.235	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.020	0.020		0.087	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	3.61		ppbV		1
Methyl Alcohol	41.2		ppbV		1
Unknown	2.53		ppbV		1
Silanol, Trimethyl-	4.58		ppbV		1



Project Number: 101869.00 Lab Number:

L1827087

Report Date:

07/30/18

SAMPLE RESULTS

Lab ID:

L1827087-03

Client ID:

B1-713

Sample Location:

WEYMOUTH QUINCY

Date Collected:

MDL

07/14/18 11:23

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** Results ppbV RL

RL

Results

ug/m3

Qualifier

Dilution **Factor** 

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

MDL

Units

RDL

Dilution **Factor** 

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	95		60-140



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

### **SAMPLE RESULTS**

Lab ID: L1827087-04

Client ID: W1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 11:43
Date Received: 07/16/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 19:36

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	d Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.69	1.00		6.39	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.037	0.020		0.181	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.081	0.020		0.510	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

### **SAMPLE RESULTS**

Lab ID: L1827087-04

Client ID: W1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 11:43

Date Received: 07/16/18
Field Prep: Not Specified

Vdqq				ug/m3		Dilution	
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
1 - Mansfield	Lab						
0.148	0.050		0.558	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
0.024	0.020		0.104	0.087			1
0.068	0.040		0.295	0.174			1
ND	0.020		ND	0.207			1
0.027	0.020		0.115	0.085			1
ND	0.020		ND	0.137			1
0.030	0.020		0.130	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
0.295	0.050		1.55	0.262			1
ND	0.050		ND	0.533			1
	ND ND ND 0.024 0.068 ND 0.030 ND	Results         RL           1 - Mansfield Lab           0.148         0.050           ND         0.020           ND         0.020           ND         0.100           0.024         0.020           ND         0.050           ND         0.050           0.295         0.050	Results         RL         MDL           1 - Mansfield Lab         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            0.024         0.020            ND         0.050            ND         0.050            0.295         0.050	Results         RL         MDL         Results           A - Mansfield Lab         0.148         0.050          0.558           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           0.024         0.020          0.104           0.068         0.040          0.295           ND         0.020          ND           0.027         0.020          ND           0.030         0.020          ND           ND         0.050          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           A - Mansfield Lab         0.148         0.050          0.558         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           0.024         0.020          ND         0.461           0.024         0.020          0.104         0.087           ND         0.020          ND         0.207           0.068         0.040          0.295         0.174           ND         0.020          ND         0.207           0.027         0.020          ND         0.137           0.030         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND <t< td=""><td>Results         RL         MDL         Results         RL         MDL           A - Mansfield Lab         0.148         0.050          0.558         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.024         0.020          0.104         0.087            0.068         0.040          0.295         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND</td><td>Results         RL         MDL         Results         RL         MDL         Qualifier           I - Mansfield Lab           0.148         0.050          0.558         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.024         0.020          ND         0.461            0.040         0.020          0.104         0.087            ND         0.020          ND         0.207            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020</td></t<>	Results         RL         MDL         Results         RL         MDL           A - Mansfield Lab         0.148         0.050          0.558         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.024         0.020          0.104         0.087            0.068         0.040          0.295         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND	Results         RL         MDL         Results         RL         MDL         Qualifier           I - Mansfield Lab           0.148         0.050          0.558         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.024         0.020          ND         0.461            0.040         0.020          0.104         0.087            ND         0.020          ND         0.207            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Hexanal	1.09		ppbV		1
Methyl Alcohol	47.2		ppbV		1
Silanol, Trimethyl-	2.25		ppbV		1
Cyclotrisiloxane, Hexamethyl-	38.2		ppbV		1
D-Limonene	5.70		ppbV		1



Project Number: 101869.00 Lab Number:

L1827087

Report Date:

07/30/18

### SAMPLE RESULTS

Lab ID: L1827087-04

Client ID: W1-713

Sample Location: WEYMOUTH QUINCY Date Collected: Date Received: 07/14/18 11:43

07/16/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** Results ppbV RL MDL

ug/m3 Results RL

MDL Qualifier Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
unknown siloxane	2.89		ppbV		1
Unknown	9.50		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	110		60-140
bromochloromethane	105		60-140
chlorobenzene-d5	108		60-140



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

### **SAMPLE RESULTS**

Lab ID: L1827087-05

Client ID: H1-713

Sample Location: WEYMOUTH QUINCY

Date Received: 07/16/18
Field Prep: Not Specified

07/14/18 12:05

Date Collected:

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 20:55

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.64	1.00		6.27	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.036	0.020		0.176	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.078	0.020		0.491	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1827087

**Report Date:** 07/30/18

### **SAMPLE RESULTS**

Lab ID: L1827087-05

Client ID: H1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14

07/14/18 12:05

Date Received: 0 Field Prep: N

07/16/18 Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
Toluene	0.117	0.050		0.441	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	0.058	0.040		0.252	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.021	0.020		0.091	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	45.9		ppbV		1
Unknown Hydrocarbon	1.13		ppbV		1
Silanol, Trimethyl-	1.03		ppbV		1



L1827087

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Report Date:

Project Number: 101869.00 07/30/18

SAMPLE RESULTS

Lab ID: L1827087-05

Client ID: H1-713

Sample Location: WEYMOUTH QUINCY Date Collected: 07/14/18 12:05

Date Received: 07/16/18

Field Prep: Not Specified

Sample Depth:

ug/m3 ppbV Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	115		60-140
bromochloromethane	111		60-140
chlorobenzene-d5	111		60-140



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

### **SAMPLE RESULTS**

Lab ID: L1827087-06
Client ID: W2-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 12:38
Date Received: 07/16/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 21:35

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	d Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.85	1.00		6.77	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.031	0.020		0.151	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.070	0.020		0.440	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00 Lab Number:

Report Date:

Field Prep:

L1827087 07/30/18

# **SAMPLE RESULTS**

Lab ID: L1827087-06

Client ID: W2-713

Sample Location: WEYMOUTH QUINCY Date Collected: 07/14/18 12:38

Date Received: 07/16/18 Not Specified

	ppbV			ug/m3			Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
1 - Mansfield	Lab						
0.115	0.050		0.433	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
0.047	0.040		0.204	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
0.020	0.020		0.087	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND N	Results         RL           1 - Mansfield Lab           0.115         0.050           ND         0.020           ND         0.020           ND         0.100           ND         0.020           ND         0.050           ND         0.050           ND         0.050	Results         RL         MDL           1 - Mansfield Lab         0.115         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            ND         0.020            ND         0.050            ND         0.050            ND         0.050	Results         RL         MDL         Results           1 - Mansfield Lab         0.115         0.050          0.433           ND         0.020          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           1 - Mansfield Lab         0.115         0.050          0.433         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           ND         0.020          ND         0.087           0.047         0.040          0.204         0.174           ND         0.020          ND         0.085           ND         0.020          ND         0.137           0.020         0.020          ND         0.120           ND         0.050          ND         0.371	Results         RL         MDL         Results         RL         MDL           1 - Mansfield Lab         0.115         0.050          0.433         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.047         0.040          ND         0.087            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND <td>Results         RL         MDL         Results         RL         MDL         Qualifier           1 - Mansfield Lab           0.115         0.050          0.433         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            0.047         0.040          0.204         0.174            ND         0.020          ND         0.087            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020</td>	Results         RL         MDL         Results         RL         MDL         Qualifier           1 - Mansfield Lab           0.115         0.050          0.433         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            0.047         0.040          0.204         0.174            ND         0.020          ND         0.087            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	2.23		ppbV		1
Silanol, Trimethyl-	1.88		ppbV		1
Unknown	1.04		ppbV		1
Methyl Alcohol	37.4		ppbV		1



Project Number: 101869.00 Lab Number:

L1827087

Report Date:

07/30/18

SAMPLE RESULTS

Lab ID:

L1827087-06

Client ID:

W2-713

Sample Location:

WEYMOUTH QUINCY

Date Collected:

07/14/18 12:38

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** Results ppbV RL

ug/m3 RL

Qualifier MDL

Dilution **Factor** 

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

MDL

Units

Results

RDL

Dilution **Factor** 

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	126		60-140
bromochloromethane	120		60-140
chlorobenzene-d5	118		60-140



Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

### **SAMPLE RESULTS**

Lab ID: L1827087-07
Client ID: BLANK-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 00:00
Date Received: 07/16/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 16:59

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	d Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	ND	1.00		ND	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

07/30/18

## **SAMPLE RESULTS**

Lab ID: L1827087-07 Client ID: BLANK-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/

07/14/18 00:00

Date Received: Field Prep:

07/16/18 Not Specified

Sample Depth:

Parameter         Results         RL         MDL         Results         RL         MDL         Qualifier           MCP Volatile Organics in Air by SIM - Mansfield Lab           Toluene         ND         0.050          ND         0.188             Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            1,2-Dibromoethane         ND         0.020          ND         0.154            1,2-Dibromoethane         ND         0.020          ND         0.136            1,2-Dibromoethane         ND         0.020          ND         0.136            1,2-Dibromoethane         ND         0.020          ND         0.087            Ethylbeachene         ND         0.020          ND         0.087            Ethylbenzene         ND         0.020          ND         0.020            Styrene         ND         0.020          ND <t< th=""><th>1 1 1</th></t<>	1 1 1
Toluene         ND         0.050          ND         0.188            Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethane         ND         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.085            Styrene         ND         0.020          ND         0.137            0-Xylene         ND         0.020          ND         0.087	1
Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethane         ND         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.087            Styrene         ND         0.020          ND         0.137            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            o-Xylene         ND         0.020          ND         0.087	1
1,2-Dibromoethane       ND       0.020        ND       0.154          Tetrachloroethene       ND       0.020        ND       0.136          Chlorobenzene       ND       0.100        ND       0.461          Ethylbenzene       ND       0.020        ND       0.087          p/m-Xylene       ND       0.040        ND       0.174          Bromoform       ND       0.020        ND       0.207          Styrene       ND       0.020        ND       0.085          1,1,2,2-Tetrachloroethane       ND       0.020        ND       0.087          o-Xylene       ND       0.020        ND       0.087	-
Tetrachloroethene         ND         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            o-Xylene         ND         0.020          ND         0.087	
Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            o-Xylene         ND         0.020          ND         0.087	1
p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
1,1,2,2-Tetrachloroethane       ND       0.020        ND       0.137          o-Xylene       ND       0.020        ND       0.087	1
o-Xylene ND 0.020 ND 0.087	1
	1
1,3-Dichlorobenzene ND 0.020 ND 0.120	1
	1
1,4-Dichlorobenzene ND 0.020 ND 0.120	1
1,2-Dichlorobenzene ND 0.020 ND 0.120	1
1,2,4-Trichlorobenzene ND 0.050 ND 0.371	1
Naphthalene ND 0.050 ND 0.262	1
Hexachlorobutadiene ND 0.050 ND 0.533	1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



101869.00

Lab Number:

L1827087

Report Date:

07/30/18

SAMPLE RESULTS

Lab ID:

L1827087-07

Client ID:

BLANK-713

Sample Location:

Project Number:

WEYMOUTH QUINCY

Date Collected:

07/14/18 00:00

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** 

ppbV RL Results

Results

ug/m3 RL MDL

Dilution

**Factor** 

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

MDL

Units

RDL

Dilution **Factor** 

Qualifier

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	103		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087

**Project Number:** 101869.00 **Report Date:** 07/30/18

# Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 15:00

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	138152-	-4	
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087

**Project Number:** 101869.00 **Report Date:** 07/30/18

# Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 15:00

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	138152-	-4	
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087

**Project Number:** 101869.00 **Report Date:** 07/30/18

# Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM Analytical Date: 07/21/18 15:00

		ppbV		u	g/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batch:	WG1	138152-	4	
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1
Tioxadillorobatadiono	ND	0.050		ND	0.555			

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM	- Mansfield Lab Associ	ated sample(s):	01-07	Batch:	WG1138	152-3			
Propylene	137	Q	-			70-130	-		
Dichlorodifluoromethane	105		-			70-130	-		
Chloromethane	89		-			70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	88		-			70-130	-		
Vinyl chloride	98		-			70-130	-		
1,3-Butadiene	89		-			70-130	-		
Bromomethane	90		-			70-130	-		
Chloroethane	93		-			70-130	-		
Ethyl Alcohol	103		-			70-130	-		
Vinyl bromide	83		-			70-130	-		
Acetone	98		-			50-150	-		
Trichlorofluoromethane	108		-			70-130	-		
iso-Propyl Alcohol	85		-			70-130	-		
1,1-Dichloroethene	101		-			70-130	-		
tert-Butyl Alcohol <sup>1</sup>	87		-			70-130	-		
Methylene chloride	87		-			70-130	-		
3-Chloropropene	119		-			70-130	-		
Carbon disulfide	78		-			70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	86		-			70-130	-		
trans-1,2-Dichloroethene	114		-			70-130	-		
1,1-Dichloroethane	115		-			70-130	-		
Methyl tert butyl ether	102		-			70-130	-		
Vinyl acetate	119		-			70-130	-		

# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mans	field Lab Associ	ated sample(s):	01-07	Batch:	WG1138	152-3			
2-Butanone	114		-			70-130	-		
cis-1,2-Dichloroethene	118		-			70-130	-		
Ethyl Acetate	118		-			70-130	-		
Chloroform	116		-			70-130	-		
Tetrahydrofuran	115		-			70-130	-		
1,2-Dichloroethane	128		-			70-130	-		
n-Hexane	117		-			70-130	-		
1,1,1-Trichloroethane	124		-			70-130	-		
Benzene	95		-			70-130	-		
Carbon tetrachloride	119		-			70-130	-		
Cyclohexane	114		-			70-130	-		
Dibromomethane <sup>1</sup>	101		-			70-130	-		
1,2-Dichloropropane	112		-			70-130	-		
Bromodichloromethane	117		-			70-130	-		
1,4-Dioxane	121		-			50-150	-		
Trichloroethene	103		-			70-130	-		
2,2,4-Trimethylpentane	126		-			70-130	-		
cis-1,3-Dichloropropene	96		-			70-130	-		
4-Methyl-2-pentanone	126		-			70-130	-		
trans-1,3-Dichloropropene	107		-			70-130	-		
1,1,2-Trichloroethane	113		-			70-130	-		
Toluene	93		-			70-130	-		
2-Hexanone	110		-			70-130	-		



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1827087

**Report Date:** 07/30/18

Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfi	eld Lab Associa	ated sample(s)	: 01-07	Batch:	WG11381	52-3			
Dibromochloromethane	104		-			70-130	-		
1,2-Dibromoethane	87		-			70-130	-		
Tetrachloroethene	91		-			70-130	-		
Chlorobenzene	87		-			70-130	-		
Ethylbenzene	100		-			70-130	-		
p/m-Xylene	100		-			70-130	-		
Bromoform	102		-			70-130	-		
Styrene	89		-			70-130	-		
1,1,2,2-Tetrachloroethane	101		-			70-130	-		
o-Xylene	101		-			70-130	-		
1,2,3-Trichloropropane <sup>1</sup>	90		-			70-130	-		
Bromobenzene <sup>1</sup>	90		-			70-130	-		
1,3,5-Trimethylbenzene	96		-			70-130	-		
1,2,4-Trimethylbenzene	101		-			70-130	-		
Benzyl chloride	123		-			70-130	-		
1,3-Dichlorobenzene	100		-			70-130	-		
1,4-Dichlorobenzene	99		-			70-130	-		
1,2-Dichlorobenzene	86		-			70-130	-		
1,2,4-Trichlorobenzene	113		-			50-150	-		
Naphthalene	110		-			50-150	-		
1,2,3-Trichlorobenzene	109		-			70-130	-		
Hexachlorobutadiene	114		-			50-150	-		



# Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1827087

Report Date:

07/30/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab			WG1138152-5		: L1827087-04 Client ID: W1-
Vinyl chloride	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Acetone	2.69	2.70	ppbV	0	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Chloroform	0.037	0.036	ppbV	3	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.081	0.074	ppbV	9	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25



# Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1827087

Report Date:

07/30/18

arameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits	
	•					
CP Volatile Organics in Air by SIM - Mansfield Lab 13	Associated sample(s):	01-07 QC Batch ID:	WG1138152-5	QC Sample	e: L1827087-04 Clie	nt ID: W1
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25	
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25	
Toluene	0.148	0.153	ppbV	3	25	
Dibromochloromethane	ND	ND	ppbV	NC	25	
1,2-Dibromoethane	ND	ND	ppbV	NC	25	
Tetrachloroethene	ND	ND	ppbV	NC	25	
Chlorobenzene	ND	ND	ppbV	NC	25	
Ethylbenzene	0.024	0.022	ppbV	9	25	
p/m-Xylene	0.068	0.073	ppbV	7	25	
Bromoform	ND	ND	ppbV	NC	25	
Styrene	0.027	0.029	ppbV	7	25	
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25	
o-Xylene	0.030	0.029	ppbV	3	25	
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25	
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25	
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25	
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25	
Naphthalene	0.295	0.309	ppbV	5	25	
Hexachlorobutadiene	ND	ND	ppbV	NC	25	



BAW - WEYMOUTH FORE RIVER L1827087

Project Number: 101869.00 Report Date: 07/30/18

## **Canister and Flow Controller Information**

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Pressure (in. Hg)	on Receipt (in. Hg)	Controler Leak Chk	Flow Out mL/min	Flow In mL/min	
L1827087-01	Q1-713-01	01023	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.4	3
L1827087-01	Q1-713-01	1715	6.0L Can	07/12/18	269082	L1825595-01	Pass	-29.6	-7.5	-	-	-	-
L1827087-02	Q1-713-02	0560	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.3	0
L1827087-02	Q1-713-02	2487	6.0L Can	07/12/18	269082	L1825595-02	Pass	-29.6	-5.7	-	-	-	-
L1827087-03	B1-713	0824	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.0	10
L1827087-03	B1-713	2323	6.0L Can	07/12/18	269082	L1825595-03	Pass	-29.6	-14.6	-	-	-	-
L1827087-04	W1-713	0226	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.3	0
L1827087-04	W1-713	1539	6.0L Can	07/12/18	269082	L1825649-01	Pass	-29.7	-9.0	-	-	-	-
L1827087-05	H1-713	0064	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	2.9	13
L1827087-05	H1-713	611	6.0L Can	07/12/18	269082	L1825504-01	Pass	-29.7	-10.2	-	-	-	-
L1827087-06	W2-713	0836	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.5	6
L1827087-06	W2-713	1548	6.0L Can	07/12/18	269082	L1825420-02	Pass	-29.8	-10.0	-	-	-	-
L1827087-07	BLANK-713	0315	Flow 5	07/12/18	269082		-	-	-	Pass	3.2	2.7	17
L1827087-07	BLANK-713	609	6.0L Can	07/12/18	269082	L1825420-01	Pass	-29.7	-29.4	-	-	-	-



Project Name:

L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-01 Date Collected: 07/03/18 16:00

Client ID: CAN 609 SHELF 51 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/05/18 15:26

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825420

07/03/18 16:00

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-01

Date Collected: Client ID: **CAN 609 SHELF 51** Date Received:

Sample Location:

07/05/18 Field Prep: Not Specified

•		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825420

07/03/18 16:00

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-01

Date Collected: Client ID: **CAN 609 SHELF 51** Date Received:

Sample Location:

07/05/18 Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825420

07/03/18 16:00

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-01

Date Collected: Client ID: CAN 609 SHELF 51

Sample Location:

Date Received: 07/05/18 Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

L1825420

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

**Air Canister Certification Results** 

Lab ID: L1825420-01

Client ID: CAN 609 SHELF 51 Date Collected: Date Received: 07/03/18 16:00

07/05/18

Field Prep:

Not Specified

Sample Depth:

Sample Location:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-01 Date Collected: 07/03/18 16:00

Client ID: CAN 609 SHELF 51 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 16:34

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825420

07/03/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-01

Client ID: CAN 609 SHELF 51

Sample Location:

Date Received: 07/05/18

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825420

Project Number: CANISTER QC BAT Report Date: 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-01

Client ID: CAN 609 SHELF 51

Sample Location:

Date Collected:

07/03/18 16:00

Date Received:

07/05/18

Field Prep:

Not Specified

Campic Dopin.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL MDL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	insfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	95		60-140



L1825420

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep:

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 07/05/18 16:04 Analytical Date:

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825420

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep:

Запре Берш.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825420

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

## **Air Canister Certification Results**

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825420

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825420

Project Number: CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825420-02

Client ID: CAN 1548 SHELF 52

Sample Location:

Date Collected:

07/03/18 16:00

Date Received:

07/05/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	92		60-140



L1825420

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 18:11

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825420

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Заттріе Беріті.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825420

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	108		60-140
chlorobenzene-d5	100		60-140



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/05/18 17:21

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825504

07/05/18 09:00

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825504-01

Date Collected: Client ID: **CAN 611 SHELF 54** Date Received:

Sample Location:

07/05/18 Field Prep: Not Specified

	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Запре Верш.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825504-01

Client ID: CAN 611 SHELF 54

Sample Location:

Date Collected: 07/05/18 09:00 Date Received: 07/05/18

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name: BATCH CANISTER CERTIFICATION** 

Lab Number: L1825504

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

**Air Canister Certification Results** 

Lab ID: L1825504-01

Client ID: **CAN 611 SHELF 54** 

Sample Location:

Date Collected: Date Received: 07/05/18 09:00

07/05/18

Field Prep:

Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 19:21

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Заттріе Беріті.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number:

Project Number: CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825504-01

Client ID: CAN 611 SHELF 54

Sample Location:

Date Collected:

07/05/18 09:00

Date Received:

07/05/18

L1825504

Field Prep:

Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	92		60-140



L1825595

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location: Field Prep:

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/06/18 18:02

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Затріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825595

Not Specified

Lab Number:

Field Prep:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Запре Верш.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825595

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	90		60-140



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM 07/07/18 15:36 Analytical Date:

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825595

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-01

Date Collected: Client ID: **CAN 1715 SHELF 43** Date Received:

Sample Location:

07/06/18 Field Prep: Not Specified

07/05/18 16:00

Campic Deptin.								
•		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	75		60-140
chlorobenzene-d5	74		60-140



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: **CAN 2487 SHELF 44** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/06/18 19:19

Analyst: RY

	ppbV				ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: **CAN 2487 SHELF 44** Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825595

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: CAN 2487 SHELF 44 Date Received: 07/06/18

Sample Location: Field Prep:

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825595

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: **CAN 2487 SHELF 44** Date Received: 07/06/18

Sample Location: Field Prep:

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



L1825595

07/05/18 16:00

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

**Air Canister Certification Results** 

Lab ID: L1825595-02

Date Collected: Client ID: **CAN 2487 SHELF 44** Date Received:

07/06/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	93		60-140



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: **CAN 2487 SHELF 44** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/07/18 16:11

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	l - Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825595

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: CAN 2487 SHELF 44 Date Received: 07/06/18

Sample Location: Field Prep:

Заттріе Беріті.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825595

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: CAN 2487 SHELF 44 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	83		60-140
chlorobenzene-d5	82		60-140



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: **CAN 2323 SHELF 49** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/06/18 19:57

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

оатре верт.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION La

Lab Number: L1825595

Project Number: CANISTER QC BAT Report Date: 07/30/18

**Air Canister Certification Results** 

Lab ID: L1825595-03

Client ID: CAN 2323 SHELF 49

Sample Location:

Date Collected:

07/05/18 16:00

Date Received:

07/06/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Results Qualifier Units RDL Dilution

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	88		60-140



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: **CAN 2323 SHELF 49** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/07/18 17:18

Analyst: MB

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1825595

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Campic Doptii.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140



L1825649

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/06/18 20:35

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825649

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825649

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825649

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825649

Project Number: CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825649-01

Client ID: CAN 1539 SHELF 42

Sample Location:

Date Collected:

07/06/18 09:00

Date Received:

07/06/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	2.9	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	93		60-140



L1825649

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/07/18 17:53

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	ND         0.200           ND         0.200           ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         1.00           ND         0.500           ND         0.500           ND         0.500           ND         0.050           ND         0.050           ND         0.020           ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.050          ND         0.020            ND         0.0500          ND         0.020            ND         0.020          ND         0.02	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1825649

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1825649

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 07/30/18

# **Air Canister Certification Results**

Lab ID: L1825649-01

Client ID: CAN 1539 SHELF 42

Sample Location:

Date Collected: 07/06/18 09:00 Date Received: 07/06/18

Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	83		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1827087

**Project Number:** 101869.00 **Report Date:** 07/30/18

# Sample Receipt and Container Information

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal

N/A Absent

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рH	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L1827087-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1827087Project Number:101869.00Report Date:07/30/18

#### **GLOSSARY**

#### **Acronyms**

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case

estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for

which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the

precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample is toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound

list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

#### **Footnotes**

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1827087Project Number:101869.00Report Date:07/30/18

#### Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations
  of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- **ND** Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1827087Project Number:101869.00Report Date:07/30/18

#### REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

Published Date: 1/8/2018 4:15:49 PM

ID No.:17873

Revision 11

Page 1 of 1

## Certification Information

#### The following analytes are not included in our Primary NELAP Scope of Accreditation:

#### Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: DW: Bromide EPA 6860: SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

## **Mansfield Facility**

**SM 2540D: TSS** 

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

#### The following analytes are included in our Massachusetts DEP Scope of Accreditation

#### Westborough Facility:

#### **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

#### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-B, E, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM450P-B, EPA 351.1, SM4 SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.

## **Mansfield Facility:**

#### **Drinking Water**

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

#### Non-Potable Water

**EPA 200.7**: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

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## ANALYTICAL REPORT

Lab Number: L1828358

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 08/07/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



**Project Number:** 101869.00 Lab Number: L1828358

Report Date: 08/07/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1828358-01	Q1-071918-1	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 11:19	07/24/18
L1828358-02	Q1-071918-2	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 11:19	07/24/18
L1828358-03	B1-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 11:55	07/24/18
L1828358-04	W1-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 12:14	07/24/18
L1828358-05	H1-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 12:34	07/24/18
L1828358-06	W2-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 12:49	07/24/18
L1828358-07	BLANK-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 00:00	07/24/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

**Project Number:** 101869.00 **Report Date:** 08/07/18

## **MADEP MCP Response Action Analytical Report Certification**

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A re	sponse to questions G, H and I is required for "Presumptive Certainty" status	
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
ı	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



**Project Name: BAW - WEYMOUTH FORE RIVER** Lab Number: L1828358 **Project Number:** 101869.00 08/07/18

**Report Date:** 

#### **Case Narrative**

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.



Serial\_No:08071815:46

Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1828358Project Number:101869.00Report Date:08/07/18

## **Case Narrative (continued)**

MCP Related Narratives

Canisters were released from the laboratory on July 18, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1828358-01, -04 and -05 results for Acetone should be considered estimated due to co-elution with a non-target peak.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative Date: 08/07/18

Christopher J. Anderson

ALPHA

# **AIR**



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Report Date:

L1828358

08/07/18

Project Number:

101869.00

SAMPLE RESULTS

Lab ID: L1828358-01 Date Collected: 07/20/18 11:19

Client ID: Q1-071918-1 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 18:01

Analyst: MB

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.39	1.00		5.68	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.020	0.020		0.098	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.064	0.020		0.403	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00 Lab Number:

L1828358

Report Date:

08/07/18

# **SAMPLE RESULTS**

Lab ID: L1828358-01 Client ID: Q1-071918-1

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Date Collected:

07/20/18 11:19

Date Received: 07/24/18 Field Prep: Not Specified

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
/I - Mansfield	Lab						
0.128	0.050		0.482	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
0.025	0.020		0.109	0.087			1
0.074	0.040		0.321	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
0.027	0.020		0.117	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND N	Results         RL           M - Mansfield Lab           0.128         0.050           ND         0.020           ND         0.020           ND         0.100           0.025         0.020           ND         0.050           ND         0.050	Results         RL         MDL           M - Mansfield Lab         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            0.025         0.020            ND         0.040            ND         0.020            ND         0.050            ND         0.050            ND         0.050	Results         RL         MDL         Results           M - Mansfield Lab         0.050          0.482           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           0.025         0.020          0.109           0.074         0.040          0.321           ND         0.020          ND           ND         0.050          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           M - Mansfield Lab         0.128         0.050          0.482         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           0.025         0.020          ND         0.087           0.074         0.040          0.321         0.174           ND         0.020          ND         0.207           ND         0.020          ND         0.137           0.027         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.050          ND         0.371 </td <td>Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         0.128         0.050          0.482         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.025         0.020          0.109         0.087            0.074         0.040          0.321         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND</td> <td>Results         RL         MDL         Results         RL         MDL         Qualifier           // - Mansfield Lab           0.128         0.050          0.482         0.188             ND         0.020          ND         0.170             ND         0.020          ND         0.154             ND         0.020          ND         0.136             ND         0.100          ND         0.461             0.025         0.020          ND         0.087            0.074         0.040          0.321         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         &lt;</td>	Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         0.128         0.050          0.482         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.025         0.020          0.109         0.087            0.074         0.040          0.321         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND	Results         RL         MDL         Results         RL         MDL         Qualifier           // - Mansfield Lab           0.128         0.050          0.482         0.188             ND         0.020          ND         0.170             ND         0.020          ND         0.154             ND         0.020          ND         0.136             ND         0.100          ND         0.461             0.025         0.020          ND         0.087            0.074         0.040          0.321         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         <

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	2.25		ppbV		1
Methyl Alcohol	5.64		ppbV		1
Unknown	1.31		ppbV		1
Ethyl Alcohol	1.20		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

**Project Number:** 101869.00 **Report Date:** 08/07/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 07/20/18 11:19

Client ID: Q1-071918-1 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	74		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	85		60-140



L1828358

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date:

101869.00 08/07/18

## SAMPLE RESULTS

Lab ID: L1828358-02 Date Collected: 07/20/18 11:19

Client ID: Q1-071918-2 Date Received: 07/24/18 Sample Location: QUINCY, WEYMOUTH , BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 19:11

Analyst: MB

	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	4.57	1.00		10.9	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.020	0.020		0.098	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1828358

**Report Date:** 08/07/18

## **SAMPLE RESULTS**

Lab ID: L1828358-02 Client ID: Q1-071918-2

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 11:19

Date Received: 07/24/18
Field Prep: Not Specified

	ppbV			ug/m3			Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
1 - Mansfield	Lab						
0.130	0.050		0.490	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
0.024	0.020		0.104	0.087			1
0.068	0.040		0.295	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
0.027	0.020		0.117	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	1 - Mansfield  0.130  ND  ND  ND  ND  0.024  0.068  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results         RL           1 - Mansfield Lab           0.130         0.050           ND         0.020           ND         0.020           ND         0.100           0.024         0.020           ND         0.050           ND         0.050           ND         0.050	Results         RL         MDL           1 - Mansfield Lab         0.130         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            0.024         0.020            ND         0.050            ND         0.050	Results         RL         MDL         Results           1 - Mansfield Lab         0.130         0.050          0.490           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           0.024         0.020          ND           0.068         0.040          0.295           ND         0.020          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           1 - Mansfield Lab         0.130         0.050          0.490         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           0.024         0.020          ND         0.461           0.024         0.020          ND         0.295           0.068         0.040          0.295         0.174           ND         0.020          ND         0.085           ND         0.020          ND         0.137           0.027         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.050          ND         0.37	Results         RL         MDL         Results         RL         MDL           1 - Mansfield Lab         0.130         0.050          0.490         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.024         0.020          0.104         0.087            0.068         0.040          0.295         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND	Results         RL         MDL         Results         RL         MDL         Qualifier           1 - Mansfield Lab           0.130         0.050          0.490         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.024         0.020          ND         0.461            0.044         0.020          0.104         0.087            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020

	Results	Qualifier U	Jnits RDL	Dilution Factor
Tentatively Identified Compounds				
Unknown	1.25		ppbV	1
Methyl Alcohol	5.27		ppbV	1
Silanol, Trimethyl-	4.04		ppbV	1
Unknown	3.20		ppbV	1
Ethyl Alcohol	1.38		ppbV	1



L1828358

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/07/18

SAMPLE RESULTS

Lab ID: Date Collected: 07/20/18 11:19
Client ID: Q1-071918-2
Date Received: 07/24/18

Client ID: Q1-071918-2 Date Received: 07/24/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.02		ppbV		1
unknown alkene	1.21		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	70		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	79		60-140



Project Number: 101869.00 Lab Number:

L1828358

Report Date: 08/07/18

## SAMPLE RESULTS

Lab ID: L1828358-03 Client ID:

B1-071918

QUINCY, WEYMOUTH , BRAINTREE

Date Collected:

07/20/18 11:55

Date Received: Field Prep:

07/24/18 Not Specified

Sample Depth:

Sample Location:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 19:46

Analyst: MB

		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.78	1.00		6.60	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.024	0.020		0.117	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.068	0.020		0.428	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00 Lab Number:

L1828358

Report Date: 08/07/18

## **SAMPLE RESULTS**

Lab ID: L1828358-03 Client ID: B1-071918

Date Collected:

07/20/18 11:55

Sample Location:

QUINCY, WEYMOUTH , BRAINTREE

Date Received:

07/24/18

Field Prep:

Not Specified

Campio Dopuii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.145	0.050		0.546	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.026	0.020		0.113	0.087			1
p/m-Xylene	0.075	0.040		0.326	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.030	0.020		0.130	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	7.89		ppbV		1
Unknown	1.66		ppbV		1
Unknown	1.26		ppbV		1
Silanol, Trimethyl-	53.8		ppbV		1
unknown siloxane	5.46		ppbV		1



Project Number: 101869.00 Lab Number:

L1828358

Report Date:

08/07/18

SAMPLE RESULTS

MDL

Lab ID: L1828358-03 Client ID:

B1-071918

QUINCY, WEYMOUTH , BRAINTREE

Date Collected:

07/20/18 11:55

Date Received: Field Prep:

07/24/18 Not Specified

Sample Depth:

Sample Location:

**Parameter** Results ppbV RL

ug/m3 RL Results

Qualifier MDL

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	14.7		ppbV		1
Ethyl Alcohol	1.64		ppbV		1
Unknown	7.12		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	68		60-140
bromochloromethane	82		60-140
chlorobenzene-d5	77		60-140



Project Number: 101869.00

Lab Number:

L1828358

Report Date:

08/07/18

# **SAMPLE RESULTS**

Lab ID: L1828358-04

Client ID: W1-071918

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected:

07/20/18 12:14

Date Received: Field Prep:

07/24/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 20:21

Analyst: MB

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.32	1.00		5.51	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.021	0.020		0.103	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1828358

Report Date:

08/07/18

## **SAMPLE RESULTS**

Lab ID: L1828358-04 Client ID: W1-071918

QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 12:14

Date Received: 07/24/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

campio Boptii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.219	0.050		0.825	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.040	0.020		0.174	0.087			1
p/m-Xylene	0.117	0.040		0.508	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.044	0.020		0.191	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
Silanol, Trimethyl-	1.66		ppbV		1
Methyl Alcohol	17.0		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

**Project Number:** 101869.00 **Report Date:** 08/07/18

**SAMPLE RESULTS** 

Lab ID: L1828358-04 Date Collected: 07/20/18 12:14

Client ID: W1-071918 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria	
1,4-difluorobenzene	68		60-140	
bromochloromethane	82		60-140	
chlorobenzene-d5	77		60-140	



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Report Date:

L1828358 08/07/18

Project Number: 101869.00

SAMPLE RESULTS

Lab ID: L1828358-05

Date Collected: 07/20/18 12:34

Client ID: H1-071918 Sample Location: QUINCY, WEYMOUTH , BRAINTREE

Date Received: 07/24/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 20:56

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.47	1.00		5.87	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.020	0.020		0.098	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.065	0.020		0.409	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



L1828358

Project Name: Lab Number: **BAW - WEYMOUTH FORE RIVER** 

Project Number: 101869.00 Report Date: 08/07/18

**SAMPLE RESULTS** 

Lab ID: L1828358-05 Date Collected: 07/20/18 12:34 Client ID: H1-071918 Date Received:

07/24/18 Sample Location: QUINCY, WEYMOUTH, BRAINTREE Field Prep: Not Specified

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
1 - Mansfield	Lab						
0.124	0.050		0.467	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
0.020	0.020		0.087	0.087			1
0.055	0.040		0.239	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
0.021	0.020		0.091	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND N	Results         RL           1 - Mansfield Lab           0.124         0.050           ND         0.020           ND         0.020           ND         0.100           0.020         0.020           ND         0.050           ND         0.050           ND         0.050	Results         RL         MDL           1 - Mansfield Lab         0.124         0.050            ND         0.020            ND         0.020            ND         0.100            ND         0.100            0.020         0.020            ND         0.050            ND         0.050            ND         0.050	Results         RL         MDL         Results           1 - Mansfield Lab         0.124         0.050          0.467           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           0.020         0.020          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           1 - Mansfield Lab         0.124         0.050          0.467         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           0.020         0.020          ND         0.087           0.055         0.040          0.239         0.174           ND         0.020          ND         0.207           ND         0.020          ND         0.085           ND         0.020          ND         0.137           0.021         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.050          ND         0.371 </td <td>Results         RL         MDL         Results         RL         MDL           1 - Mansfield Lab         0.124         0.050          0.467         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.020         0.020          ND         0.087            ND         0.055         0.040          0.239         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          <td< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           1 - Mansfield Lab           0.124         0.050          0.467         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.020         0.020          ND         0.461            0.020         0.020          ND         0.087            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020</td></td<></td>	Results         RL         MDL         Results         RL         MDL           1 - Mansfield Lab         0.124         0.050          0.467         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.020         0.020          ND         0.087            ND         0.055         0.040          0.239         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020 <td< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           1 - Mansfield Lab           0.124         0.050          0.467         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.020         0.020          ND         0.461            0.020         0.020          ND         0.087            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020</td></td<>	Results         RL         MDL         Results         RL         MDL         Qualifier           1 - Mansfield Lab           0.124         0.050          0.467         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.020         0.020          ND         0.461            0.020         0.020          ND         0.087            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.09		ppbV		1
Silanol, Trimethyl-	1.24		ppbV		1
Methyl Alcohol	6.40		ppbV		1



Date Collected:

L1828358

07/20/18 12:34

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/07/18

SAMPLE RESULTS

Lab ID: L1828358-05

Client ID: H1-071918 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

			Acceptance
Internal Standard	% Recovery	Qualifier	Criteria
1,4-difluorobenzene	67		60-140
bromochloromethane	81		60-140
chlorobenzene-d5	77		60-140



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: լ

L1828358

Report Date:

08/07/18

#### SAMPLE RESULTS

Lab ID: L1828358-06

Client ID: W2-071918

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 12:49

Date Received: 07/24/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 21:31

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.66	1.00		6.32	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.020	0.020		0.098	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: **BAW - WEYMOUTH FORE RIVER** 

Project Number: 101869.00 Lab Number:

L1828358

Report Date:

08/07/18

### **SAMPLE RESULTS**

Lab ID: L1828358-06 Client ID:

W2-071918

QUINCY, WEYMOUTH ,BRAINTREE

Date Collected:

07/20/18 12:49

Date Received: Field Prep:

07/24/18 Not Specified

Sample Depth:

Sample Location:

Cample Depth.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIN	/I - Mansfield	Lab						
Toluene	0.131	0.050		0.494	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.023	0.020		0.10	0.087			1
p/m-Xylene	0.065	0.040		0.282	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.024	0.020		0.104	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier U	Jnits RDL	Dilution Factor
Tentatively Identified Compounds				
Silanol, Trimethyl-	1.09		ppbV	1
Ethene, chlorotrifluoro-	1.15		ppbV	1
Unknown	1.31		ppbV	1
Methyl Alcohol	7.75		ppbV	1
Cyclotrisiloxane, Hexamethyl-	1.69		ppbV	1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

**Project Number:** 101869.00 **Report Date:** 08/07/18

**SAMPLE RESULTS** 

Lab ID: L1828358-06 Date Collected: 07/20/18 12:49

Client ID: W2-071918 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	67		60-140
bromochloromethane	79		60-140
chlorobenzene-d5	76		60-140



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1828358

**Report Date:** 08/07/18

#### **SAMPLE RESULTS**

Lab ID: L1828358-07

Client ID: BLANK-071918

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 00:00 Date Received: 07/24/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 17:26

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	ND	1.00		ND	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1828358

**Report Date:** 08/07/18

### **SAMPLE RESULTS**

Lab ID: L1828358-07 Client ID: BLANK-071918

Sample Location: QUINCY, WEYMOUTH , BRAINTREE

Date Collected:

07/20/18 00:00

Date Received: Field Prep:

07/24/18 Not Specified

Sample Depth:

Results M - Mansfield	RL	MDL	Results	-			Factor
M - Mansfield			resuits	RL	MDL	Qualifier	ractor
	Lab						
ND	0.050		ND	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
ND	0.040		ND	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND N	ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         0.020           ND         0.040           ND         0.020           ND         0.050           ND         0.050	ND       0.050          ND       0.020          ND       0.020          ND       0.100          ND       0.100          ND       0.020          ND       0.050          ND       0.050	ND       0.050        ND         ND       0.020        ND         ND       0.020        ND         ND       0.020        ND         ND       0.100        ND         ND       0.020        ND         ND       0.040        ND         ND       0.020        ND         ND       0.050        ND	ND         0.050          ND         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           ND         0.020          ND         0.087           ND         0.040          ND         0.174           ND         0.020          ND         0.207           ND         0.020          ND         0.085           ND         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.050          ND         0.371           ND         0.050          ND         0.262	ND         0.050          ND         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120	ND       0.050        ND       0.188          ND       0.020        ND       0.170          ND       0.020        ND       0.154          ND       0.020        ND       0.136          ND       0.100        ND       0.461          ND       0.020        ND       0.087          ND       0.040        ND       0.174          ND       0.020        ND       0.207          ND       0.020        ND       0.085          ND       0.020        ND       0.137          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.050        ND       0.371          ND       0.

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

**Project Number:** 101869.00 **Report Date:** 08/07/18

SAMPLE RESULTS

Lab ID: L1828358-07

Client ID: BLANK-071918

Sample Location: QUINCY, WEYMOUTH , BRAINTREE

Date Collected: 07/20/18 00:00

Date Received: 07/24/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	78		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	87		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

**Project Number:** 101869.00 **Report Date:** 08/07/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 14:41

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIN	M - Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	143362-	-4	
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

**Project Number:** 101869.00 **Report Date:** 08/07/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 14:41

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SII	M - Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	143362	-4	
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

**Project Number:** 101869.00 **Report Date:** 08/07/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 14:41

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	143362	-4	
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1828358

Report Date:

08/07/18

Parameter	LCS %Recovery Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - M	ansfield Lab Associated sample	e(s): 01-07 Batch:	WG1143362-3			
Propylene	101	-	70-130	-		
Dichlorodifluoromethane	87	-	70-130	-		
Chloromethane	86	-	70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	89	-	70-130	-		
Vinyl chloride	87	-	70-130	-		
1,3-Butadiene	92	-	70-130	-		
Bromomethane	90	-	70-130	-		
Chloroethane	83	-	70-130	-		
Ethyl Alcohol	84	-	70-130	-		
Vinyl bromide	88	-	70-130	-		
Acetone	81	-	50-150	-		
Trichlorofluoromethane	86	-	70-130	-		
iso-Propyl Alcohol	79	-	70-130	-		
1,1-Dichloroethene	93	-	70-130	-		
tert-Butyl Alcohol <sup>1</sup>	92	-	70-130	-		
Methylene chloride	93	-	70-130	-		
3-Chloropropene	104	-	70-130	-		
Carbon disulfide	90	-	70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	94	-	70-130	-		
trans-1,2-Dichloroethene	93	-	70-130	-		
1,1-Dichloroethane	92	-	70-130	-		
Methyl tert butyl ether	100	-	70-130	-		
Vinyl acetate	104	-	70-130	-		



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1828358

Report Date:

08/07/18

arameter	LCS %Recovery Qu	LCSD al %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits
CP Volatile Organics in Air by SIM - N	Mansfield Lab Associated sa	ample(s): 01-07 Batc	h: WG1143362-3			
2-Butanone	94	-	70-130	-		
cis-1,2-Dichloroethene	95	-	70-130	-		
Ethyl Acetate	99	-	70-130	-		
Chloroform	94	-	70-130	-		
Tetrahydrofuran	86	-	70-130	-		
1,2-Dichloroethane	89	-	70-130	-		
n-Hexane	94	-	70-130	-		
1,1,1-Trichloroethane	89	-	70-130	-		
Benzene	89	-	70-130	-		
Carbon tetrachloride	90	-	70-130	-		
Cyclohexane	96	-	70-130	-		
Dibromomethane <sup>1</sup>	76	-	70-130	-		
1,2-Dichloropropane	88	-	70-130	-		
Bromodichloromethane	90	-	70-130	-		
1,4-Dioxane	96	-	50-150	-		
Trichloroethene	90	-	70-130	-		
2,2,4-Trimethylpentane	100	-	70-130	-		
cis-1,3-Dichloropropene	98	-	70-130	-		
4-Methyl-2-pentanone	94	-	70-130	-		
trans-1,3-Dichloropropene	84	-	70-130	-		
1,1,2-Trichloroethane	92	-	70-130	-		
Toluene	96	-	70-130	-		
2-Hexanone	97		70-130	-		



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1828358

**Report Date:** 08/07/18

arameter	LCS %Recovery		LCSD Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM - Ma	nsfield Lab Associa	ated sample(s): 01	-07 Batch:	WG11433	62-3			
Dibromochloromethane	103		-		70-130	-		
1,2-Dibromoethane	95		-		70-130	-		
Tetrachloroethene	94		-		70-130	-		
Chlorobenzene	97		-		70-130	-		
Ethylbenzene	102		-		70-130	-		
p/m-Xylene	102		-		70-130	-		
Bromoform	102		-		70-130	-		
Styrene	104		-		70-130	-		
1,1,2,2-Tetrachloroethane	100		-		70-130	-		
o-Xylene	104		-		70-130	-		
1,2,3-Trichloropropane <sup>1</sup>	91		-		70-130	-		
Bromobenzene <sup>1</sup>	94		-		70-130	-		
1,3,5-Trimethylbenzene	105		-		70-130	-		
1,2,4-Trimethylbenzene	111		-		70-130	-		
Benzyl chloride	104		-		70-130	-		
1,3-Dichlorobenzene	102		-		70-130	-		
1,4-Dichlorobenzene	102		-		70-130	-		
1,2-Dichlorobenzene	104		-		70-130	-		
1,2,4-Trichlorobenzene	103		-		50-150	-		
Naphthalene	99		-		50-150	-		
1,2,3-Trichlorobenzene	97		-		70-130	-		
Hexachlorobutadiene	113		-		50-150	-		



# Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1828358

**Report Date:** 08/07/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield L 071918-1	ab Associated sample(s):	01-07 QC Batch ID:	WG1143362-5	QC Sample:	L1828358-01 Client ID: Q1-
Vinyl chloride	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Acetone	2.39	2.66	ppbV	11	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Chloroform	0.020	0.020	ppbV	0	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.064	0.065	ppbV	2	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25



# Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1828358

Report Date:

08/07/18

	Natha Osami	Davida da Carrala	1114	DDD		PD	
arameter	Native Sample	Duplicate Sample	Units	RPD	Qual L	imits	
CP Volatile Organics in Air by SIM - Mansfield Lab 71918-1	Associated sample(s):	01-07 QC Batch ID:	WG1143362-5	QC Sample	: L1828358-0	1 Client ID:	Q1-
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25	
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25	
Toluene	0.128	0.132	ppbV	3		25	
Dibromochloromethane	ND	ND	ppbV	NC		25	
1,2-Dibromoethane	ND	ND	ppbV	NC		25	
Tetrachloroethene	ND	ND	ppbV	NC		25	
Chlorobenzene	ND	ND	ppbV	NC		25	
Ethylbenzene	0.025	0.026	ppbV	4		25	
p/m-Xylene	0.074	0.076	ppbV	3		25	
Bromoform	ND	ND	ppbV	NC		25	
Styrene	ND	ND	ppbV	NC		25	
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25	
o-Xylene	0.027	0.028	ppbV	4		25	
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25	
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25	
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25	
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25	
Naphthalene	ND	ND	ppbV	NC		25	
Hexachlorobutadiene	ND	ND	ppbV	NC		25	



BAW - WEYMOUTH FORE RIVER L1828358

Project Number: 101869.00 Report Date: 08/07/18

### **Canister and Flow Controller Information**

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Pressure (in. Hg)	on Receipt (in. Hg)	Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1828358-01	Q1-071918-1	0044	Flow 5	07/18/18	269576		-	-	-	Pass	3.2	3.5	9
L1828358-01	Q1-071918-1	1530	6.0L Can	07/18/18	269576	L1827000-02	Pass	-29.8	-4.5	-	-	-	-
L1828358-02	Q1-071918-2	0413	Flow 5	07/18/18	269576		-	-	-	Pass	3.2	3.6	12
L1828358-02	Q1-071918-2	960	6.0L Can	07/18/18	269576	L1827000-01	Pass	-29.8	-5.2	-	-	-	
L1828358-03	B1-071918	0551	Flow 5	07/18/18	269576		-	-	-	Pass	3.3	3.6	9
L1828358-03	B1-071918	1830	6.0L Can	07/18/18	269576	L1827000-03	Pass	-29.8	-9.5	-	-	-	
L1828358-04	W1-071918	0838	Flow 5	07/18/18	269576		-	-	-	Pass	3.3	3.7	11
L1828358-04	W1-071918	2449	6.0L Can	07/18/18	269576	L1824839-03	Pass	-29.4	-4.7	-	-	-	-
L1828358-05	H1-071918	0640	Flow 4	07/18/18	269576		-	-	-	Pass	3.3	3.7	11
L1828358-05	H1-071918	1785	6.0L Can	07/18/18	269576	L1826681-02	Pass	-29.6	-4.6	-	-	-	
L1828358-06	W2-071918	0427	Flow 5	07/18/18	269576		-	-	-	Pass	3.3	3.7	11
L1828358-06	W2-071918	1612	6.0L Can	07/18/18	269576	L1826681-03	Pass	-29.4	-5.2	-	-	-	-
L1828358-07	BLANK-071918	0200	Flow 5	07/18/18	269576		-	-	-	Pass	3.3	3.7	11
L1828358-07	BLANK-071918	2099	6.0L Can	07/18/18	269576	L1826681-01	Pass	-29.6	-29.2	-	-	-	



Project Name:

L1824839

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/29/18 19:40

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1824839

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Запре Бериі.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1824839

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location: Field Prep:

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1824839

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location: Field Prep:

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



06/28/18 16:00

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1824839

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1824839-03

Date Collected: Client ID: **CAN 2449 SHELF 48** Date Received:

06/29/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140



L1824839

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/07/18

### **Air Canister Certification Results**

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/29/18 19:40

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1824839

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1824839

Project Number: CANISTER QC BAT Report Date: 08/07/18

### **Air Canister Certification Results**

Lab ID: L1824839-03

Client ID: CAN 2449 SHELF 48

Sample Location:

Date Collected:

06/28/18 16:00

Date Received:

06/29/18

Field Prep: Not Specified

• •		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Nansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: **CAN 2099 SHELF 49** Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/13/18 16:11

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: CAN 2099 SHELF 49 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: CAN 2099 SHELF 49 Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Запре Верш.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: CAN 2099 SHELF 49 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1826681

Project Number: CANISTER QC BAT Report Date: 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-01

Client ID: CAN 2099 SHELF 49

Sample Location:

Date Collected:

07/12/18 16:00

Date Received:

07/13/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: **CAN 2099 SHELF 49** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/13/18 20:28

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	l - Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: CAN 2099 SHELF 49 Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: CAN 2099 SHELF 49 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Campic Deptin.								
•		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	85		60-140



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/13/18 16:49

Analyst: RY

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	ld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1826681

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep:

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

### **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1826681

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: Client ID: **CAN 1785 SHELF 50** 

Date Received: 07/13/18

Field Prep:

Not Specified

07/12/18 16:00

Sample Depth:

Sample Location:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1.4 Diffuerahanzana	•		00.440
1,4-Difluorobenzene	94		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/13/18 19:19

Analyst: RY

		ppbV	bbV ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Acetaldehyde	ND	2.50		ND	4.50			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	2.50		ND	4.71			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Pentane	ND	0.200		ND	0.590			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
tert-Butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	1.00		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Запіріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Chloroform	ND	0.200		ND	0.977			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
Benzene	ND	0.200		ND	0.639			1
Thiophene	ND	0.200		ND	0.688			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
2-Methylthiophene	ND	0.200		ND	0.803			1
2-Hexanone	ND	0.200		ND	0.820			1
3-Methylthiophene	ND	0.200		ND	0.803			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
2-Ethylthiophene	ND	0.200		ND	0.918			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
Nonane	ND	0.200		ND	1.05			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2,3-Trimethylbenzene	ND	0.200		ND	0.983			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
Indane	ND	0.200		ND	0.967			1
Indene	ND	0.200		ND	0.951			1
Undecane	ND	0.200		ND	1.28			1
1,2,4,5-Tetramethylbenzene	ND	0.500		ND	2.74			1
Dodecane	ND	0.500		ND	3.48			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1826681

Project Number: CANISTER QC BAT Report Date: 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-02

Client ID: CAN 1785 SHELF 50 Date Re

Date Collected: 07/12/18 16:00 Date Received: 07/13/18

Field Prep: Not Specified

Sample Depth:

Sample Location:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Benzothiophene	ND	0.500		ND	2.74			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1
2-Methylnaphthalene	ND	1.00		ND	5.82			1
1-Methylnaphthalene	ND	1.00		ND	5.82			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	92		60-140



L1826681

Not Specified

Lab Number:

Field Prep:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location:

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/13/18 19:54

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1826681

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep:

Заттріе Беріті.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-02

Client ID: CAN 1785 SHELF 50

Sample Location:

Date Collected:

Lab Number:

07/12/18 16:00

Date Received:

07/13/18

L1826681

Field Prep:

Not Specified

Campic Doptii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 **CAN 1612 SHELF 55** Client ID: Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/13/18 17:27

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: CAN 1612 SHELF 55 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Foluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1826681

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	88		60-140



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/13/18 21:03

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1826681

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1826681

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Campic Dopuii.								
		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	84		60-140



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-01 Date Collected:

07/16/18 08:30 Client ID: CAN 960 SHELF 46 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/16/18 16:51

Analyst: GJ

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827000

07/16/18 08:30

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

# **Air Canister Certification Results**

Lab ID: L1827000-01

Date Collected: Client ID: **CAN 960 SHELF 46** Date Received:

Sample Location:

07/16/18 Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

# **Air Canister Certification Results**

Lab ID: L1827000-01

Date Collected: 07/16/18 08:30 Client ID: **CAN 960 SHELF 46** Date Received:

Sample Location:

07/16/18 Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-01

Date Collected: 07/16/18 08:30 Client ID: **CAN 960 SHELF 46** Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827000

Project Number: CANISTER QC BAT Report Date: 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-01

Client ID: CAN 960 SHELF 46

Sample Location:

Date Collected:

07/16/18 08:30

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.3	J	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	93		60-140



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-01

Date Collected: 07/16/18 08:30 Client ID: CAN 960 SHELF 46 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/16/18 16:51

Analyst: GJ

	<u></u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827000

07/16/18 08:30

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

# **Air Canister Certification Results**

Lab ID: L1827000-01

Date Collected: Client ID: **CAN 960 SHELF 46** 

Date Received: 07/16/18 Field Prep: Not Specified

Sample Depth:

Sample Location:

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1827000

07/16/18 08:30

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-01

Date Collected: Client ID: **CAN 960 SHELF 46** Date Received:

07/16/18 Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	92		60-140



L1827000

Not Specified

Lab Number:

Field Prep:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location:

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/16/18 17:23

Analyst: GJ

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Запре Бериі.		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep:

Not Specified

Запріє Беріп.	ppbV ug/m3				Dilution			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827000

Project Number: CANISTER QC BAT Report Date: 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-02

Client ID: CAN 1530 SHELF 47

Sample Location:

Date Collected:

07/16/18 08:30

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/16/18 17:23

Analyst: GJ

ppb			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	ND         0.200           ND         0.200           ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         1.00           ND         0.500           ND         0.500           ND         0.500           ND         0.050           ND         0.050           ND         0.020           ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.500          ND         0.020            ND         0.050          ND         0.020            ND         0.020          ND         0.020	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1827000

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep:

Запріє Беріп.		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827000

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Parameter		ppbV		ug/m3				Dilution
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/16/18 17:56

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3	ug/m3		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

## **Air Canister Certification Results**

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Sample Depth.		ppbV			ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
Volatile Organics in Air - Mansfield	Lab								
Nonane	ND	0.200		ND	1.05			1	
Isopropylbenzene	ND	0.200		ND	0.983			1	
Bromobenzene	ND	0.200		ND	0.793			1	
2-Chlorotoluene	ND	0.200		ND	1.04			1	
n-Propylbenzene	ND	0.200		ND	0.983			1	
1-Chlorotoluene	ND	0.200		ND	1.04			1	
4-Ethyltoluene	ND	0.200		ND	0.983			1	
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1	
ert-Butylbenzene	ND	0.200		ND	1.10			1	
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1	
Decane	ND	0.200		ND	1.16			1	
Benzyl chloride	ND	0.200		ND	1.04			1	
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1	
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1	
sec-Butylbenzene	ND	0.200		ND	1.10			1	
o-Isopropyltoluene	ND	0.200		ND	1.10			1	
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1	
n-Butylbenzene	ND	0.200		ND	1.10			1	
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1	
Undecane	ND	0.200		ND	1.28			1	
Dodecane	ND	0.200		ND	1.39			1	
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1	
Naphthalene	ND	0.200		ND	1.05			1	
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1	
Hexachlorobutadiene	ND	0.200		ND	2.13			1	



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827000

Project Number: CANISTER QC BAT Report Date: 08/07/18

# **Air Canister Certification Results**

Lab ID: L1827000-03

Client ID: CAN 1830 SHELF 53

Sample Location:

Date Collected:

07/16/18 08:30

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.4	J	Vdqq		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	87		60-140



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

# **Air Canister Certification Results**

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/16/18 17:56

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827000

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

# **Air Canister Certification Results**

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827000

**Project Number:** CANISTER QC BAT **Report Date:** 08/07/18

# **Air Canister Certification Results**

Lab ID: L1827000-03

Date Collected: Client ID: CAN 1830 SHELF 53 Date Received:

07/16/18 Field Prep: Not Specified

07/16/18 08:30

Sample Depth:

Sample Location:

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL MDL		Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	87		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1828358

**Project Number:** 101869.00 **Report Date:** 08/07/18

# Sample Receipt and Container Information

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal

N/A Absent

Container Information			Initial	Final	Temp			Frozen		
	Container ID	Container Type	Cooler	рH	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
	L1828358-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
	L1828358-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
	L1828358-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
	L1828358-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
	L1828358-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
	L1828358-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
	L1828358-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1828358Project Number:101869.00Report Date:08/07/18

### **GLOSSARY**

#### **Acronyms**

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any

values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an

analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case

estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes a adjustments from dilutions, concentrations or moisture content, where applicable.

adjustments from unutions, concentrations of moisture content, where applicable

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less

precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample is toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound

list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

#### **Footnotes**

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1828358Project Number:101869.00Report Date:08/07/18

#### Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations
  of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- **ND** Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1828358Project Number:101869.00Report Date:08/07/18

## REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

## **LIMITATION OF LIABILITIES**

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.
Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:**17873** Revision 11

Published Date: 1/8/2018 4:15:49 PM

Page 1 of 1

## **Certification Information**

## The following analytes are not included in our Primary NELAP Scope of Accreditation:

#### Westborough Facility

EPA 624: m/p-xylene, o-xylene

**EPA 8260C:** <u>NPW</u>: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; <u>SCM</u>: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: <u>DW:</u> Bromide EPA 6860: <u>SCM:</u> Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

# Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

#### The following analytes are included in our Massachusetts DEP Scope of Accreditation

#### Westborough Facility:

#### **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

#### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

**EPA 608**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.

## **Mansfield Facility:**

## Drinking Water

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

## Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

**EPA 245.1** Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Document Type: Form Pre-Qualtrax Document ID: 08-113

<b>Д</b> ІРНА	AIR A	NALYSIS PAGE / OF	Date Rec'd in Lab: 7/24/8	ALPHA Job #: U828358
320 Forbes Blvd, M	Mansfield, MA 02048	Project Information	Report Information - Data Deliverables	Billing Information
200.00	0 FAX: 508-822-3288	Project Name: Fore River Slady	1 4.7%	☐ Same as Client info PO #:
Client Informati		Project Location: Orncy het ment	Criteria Checker:	
Client: Me	11 1	Project #:	(Default based on Regulatory Criteria Indicated) Other Formats:	W. Commission
Address: W		Project Manager: I homes Mr Gran	EMAIL (standard pdf report)	Regulatory Requirements/Report Limit
37541	0/899		☐ Additional Deliverables:	State/Fed Program Res / Comm
Phone: (978) Fax: (978	242.1318	Turn-Around Time	Report to: (if different than Project Manager)	
1 2		☐ Standard ☐ RUSH conty confirmed if pre-approved?		
	im ignitestatem w			ANALYSIS
Other Project S	ive been previously analyzed by Alpha Specific Requirements/Comr	Date Due: Time:		///2//2///
ALPHA Lab ID (Lab Use Only)	Target Compound List:	I Columns Below Must	Sample Sampler's Can ID ID-Flow Matrix* Initials Size Can Controller	Sample Comments (i.e. PID
me-	01-071918-1	End Date Start Time End Time Vacuum Vacuum		Sample Comments (i.e. PID
38101	Q1-0798-2	7/2/10 19/st 1/3/14 -3067 -453	AA MA 62 1536 0087 X	+1019715
02	0	72/18 dst dst -3024 -512	AA IN 6L 960 0413 X	
13	13/-07/9/8	120/18 118 84 113 85+ -3651 - 888	AA IN 62 18300551 X	
,04	N, -0719-18	7/2016 " 2 24 12/25+ 3020- 4.38	AA m 6, 24590858 X	h
105	14,-07/9/8	1298 1238 1 238/34-30.18-4.7	AT 1/2 62 1785-0680 X	, h
,06	W2-0719/8	1244 12 87 -3089-456	AA TN62 16120127 X	
,07	Blak 071918	7/2/18 VA	AA TO 662099 X	7
*SAMPLE	MATRIX CODES SV	A = Ambient Air (Indoor/Outdoor) = Soil Vapor/Landfill Gas/SVE	Container Type	Please print clearly, legibly and
	Oti	ner = Please Specify  Relinquished By: Date/Time		completely. Samples can not be logged in and turnaround time
Page 102 of 10	T. thu	Date/Time 229-13 (27) 1/24/18 193	en in Meredy 7/24/16	clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



## ANALYTICAL REPORT

Lab Number: L1829376

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 08/15/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Number: 101869.00

**Lab Number:** L1829376 **Report Date:** 08/15/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1829376-01	Q1-072518-1	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 11:13	07/30/18
L1829376-02	Q1-072518-2	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 11:14	07/30/18
L1829376-03	B1-072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 11:56	07/30/18
L1829376-04	W1-072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 12:19	07/30/18
L1829376-05	H1-072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 12:36	07/30/18
L1829376-06	W2-072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 12:56	07/30/18
L1829376-07	BLANK 072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 00:00	07/30/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

**Project Number:** 101869.00 **Report Date:** 08/15/18

## **MADEP MCP Response Action Analytical Report Certification**

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
Α	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A res	sponse to questions G, H and I is required for "Presumptive Certainty" status	
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
ı	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



**Project Name: BAW - WEYMOUTH FORE RIVER** Lab Number: L1829376 **Project Number:** 101869.00 **Report Date:** 08/15/18

## **Case Narrative**

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

## HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.



Serial\_No:08151814:24

Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1829376Project Number:101869.00Report Date:08/15/18

## **Case Narrative (continued)**

MCP Related Narratives

Canisters were released from the laboratory on July 24, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative Date: 08/15/18

Christopher J. Anderson

ALPHA

# **AIR**



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/15/18

## SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 11:13

Client ID: Q1-072518-1 Date Received: 07/30/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 18:01

		ppbV			ug/m3		Dilu	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by Sl	M - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	1.87	1.00		4.44	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.070	0.020		0.440	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/15/18

## SAMPLE RESULTS

Lab ID: L1829376-01 Date Collected: 07/26/18 11:13 Client ID: Q1-072518-1 Date Received: 07/30/18

Client ID: Q1-072518-1 Date Received: 07/30/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Campio Bopan.		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.058	0.050		0.219	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	6.49		ppbV		1
Methyl Alcohol	14.2		ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.00		ppbV		1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1829376

Project Number: Report Date: 101869.00 08/15/18

SAMPLE RESULTS

Lab ID: L1829376-01 Date Collected: 07/26/18 11:13

Client ID: Q1-072518-1 Date Received: 07/30/18

QUINCY, WEYMOUTH , BRAINTREE Sample Location: Field Prep: Not Specified

Sample Depth:

ug/m3 ppbV Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140



Project Number: 101869.00

Lab Number: L1829376

**Report Date:** 08/15/18

## **SAMPLE RESULTS**

Lab ID: L1829376-02 Client ID: Q1-072518-2

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Received: 07/30/18
Field Prep: Not Specified

07/26/18 11:14

Date Collected:

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 18:36

		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.20	1.00		5.23	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.071	0.020		0.447	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/15/18

SAMPLE RESULTS

Lab ID: L1829376-02 Client ID: Q1-072518-2

Sample Location: QUINCY, WEYMOUTH , BRAINTREE

Date Collected: 07/26/18 11:14

Date Received: 07/30/18
Field Prep: Not Specified

сатрю ворит.		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.056	0.050		0.211	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	1.85		ppbV		1
Methyl Alcohol	19.6		ppbV		1
Acetaldehyde	4.23		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

**Project Number:** 101869.00 **Report Date:** 08/15/18

SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 11:14

Client ID: Q1-072518-2 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140



Project Number: 101869.00

Lab Number:

L1829376

**Report Date:** 08/15/18

## **SAMPLE RESULTS**

Lab ID: L1829376-03

Client ID: B1-072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/2

07/26/18 11:56

Date Received: Field Prep:

07/30/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 19:47

		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.26	1.00		5.37	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.073	0.020		0.459	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

08/15/18

## **SAMPLE RESULTS**

Lab ID: L1829376-03 Client ID: B1-072518

QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/2
Date Received: 07/3

07/26/18 11:56

Date Received: 07/30/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

Campio Bopan.		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.064	0.050		0.241	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	0.032	0.020		0.217	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Acetaldehyde	1.90		ppbV		1
Silanol, Trimethyl-	1.03		ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.02		ppbV		1
Methyl Alcohol	24.0		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

**Project Number:** 101869.00 **Report Date:** 08/15/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 07/26/18 11:56

Client ID: B1-072518 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	83		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/15/18

## SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 12:19

Client ID: W1-072518 Date Received: 07/30/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 20:22

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.53	1.00		6.01	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.020	0.020		0.098	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.071	0.020		0.447	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1829376

**Report Date:** 08/15/18

## **SAMPLE RESULTS**

Lab ID: L1829376-04 Client ID: W1-072518

Date Collected:

07/26/18 12:19

Sample Location:

QUINCY, WEYMOUTH, BRAINTREE

Date Received: 07/30/18
Field Prep: Not Specified

Parameter         Results         RL         MDL         Results         RL         MDL         Qualifier           MCP Volatile Organics in Air by SIM - Mansfield Lab         ND         0.050          0.283         0.188             Toluene         0.075         0.050          0.283         0.188             Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethene         0.028         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.0461            Ethylbenzene         ND         0.020          ND         0.087            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085	Factor
Toluene         0.075         0.050          0.283         0.188            Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethene         0.028         0.020          0.190         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207	
Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethene         0.028         0.020          0.190         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207	
1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethene         0.028         0.020          0.190         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207	1
Tetrachloroethene         0.028         0.020          0.190         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207	1
Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207	1
Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207	1
p/m-Xylene ND 0.040 ND 0.174 Bromoform ND 0.020 ND 0.207	1
Bromoform ND 0.020 ND 0.207	1
- 110 0.020	1
Styrene ND 0.020 ND 0.085	1
	1
1,1,2,2-Tetrachloroethane ND 0.020 ND 0.137	1
o-Xylene ND 0.020 ND 0.087	1
1,3-Dichlorobenzene ND 0.020 ND 0.120	1
1,4-Dichlorobenzene ND 0.020 ND 0.120	1
1,2-Dichlorobenzene ND 0.020 ND 0.120	1
1,2,4-Trichlorobenzene ND 0.050 ND 0.371	1
Naphthalene ND 0.050 ND 0.262	1
Hexachlorobutadiene ND 0.050 ND 0.533	1

	Results	Qualifier Ur	nits RDL	Dilution Factor
Tentatively Identified Compounds				
Methyl Alcohol	12.5	р	pbV	1
Acetaldehyde	1.31	p	pbV	1
Unknown	1.93	p	pbV	1
Cyclotrisiloxane, Hexamethyl-	6.80	р	pbV	1
Unknown	1.41	p	pbV	1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/15/18

**SAMPLE RESULTS** 

Lab ID: L1829376-04

Client ID: W1-072518

Sample Location: QUINCY, WEYMOUTH , BRAINTREE

Date Collected: 07/26/18 12:19

Date Received: 07/30/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	87		60-140



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

08/15/18

## SAMPLE RESULTS

Lab ID: L1829376-05

Client ID: H1-072518

Sample Location: QUINCY, WEYMOUTH , BRAINTREE

Date Collected:

07/26/18 12:36

Date Received: Field Prep:

07/30/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 20:56

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	1.96	1.00		4.66	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.073	0.020		0.459	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/15/18

SAMPLE RESULTS

Lab ID: L1829376-05 Client ID: H1-072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 12:36

Date Received: 07/30/18
Field Prep: Not Specified

Campio Bopan.		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	18.1		ppbV		1
Acetaldehyde	1.64		ppbV		1
Silanol, Trimethyl-	1.26		ppbV		1



08/15/18

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Report Date:

Project Number: 101869.00

SAMPLE RESULTS

Lab ID: L1829376-05

Client ID: H1-072518

QUINCY, WEYMOUTH , BRAINTREE Sample Location:

Date Collected: 07/26/18 12:36

Date Received: 07/30/18

Field Prep: Not Specified

Sample Depth:

ug/m3 ppbV Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	81		60-140



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

08/15/18

# SAMPLE RESULTS

Lab ID: L1829376-06

Client ID: W2-072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 0

07/26/18 12:56

Date Received: Field Prep:

07/30/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 21:31

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	1.98	1.00		4.70	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.071	0.020		0.447	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: Lab Number: **BAW - WEYMOUTH FORE RIVER** 

Project Number: 101869.00 Report Date: 08/15/18

## **SAMPLE RESULTS**

Lab ID: L1829376-06 Date Collected: 07/26/18 12:56 Client ID: W2-072518 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH , BRAINTREE Field Prep: Not Specified

Results  1 - Mansfield  0.066		MDL	Results	RL	MDL	Qualifier	Factor
0.066	0.050						
	0.050		0.249	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
ND	0.040		ND	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND N	ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         0.020           ND         0.040           ND         0.020           ND         0.050           ND         0.050	ND       0.020          ND       0.020          ND       0.020          ND       0.100          ND       0.020          ND       0.040          ND       0.020          ND       0.050          ND       0.050	ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.020          ND           ND         0.040          ND           ND         0.020          ND           ND         0.050          ND           ND         0.050          ND	ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           ND         0.020          ND         0.087           ND         0.040          ND         0.174           ND         0.020          ND         0.207           ND         0.020          ND         0.085           ND         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.050          ND         0.371           ND         0.050          ND         0.262	ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.050          ND         0.371	ND       0.020        ND       0.170          ND       0.020        ND       0.154          ND       0.020        ND       0.136          ND       0.100        ND       0.461          ND       0.020        ND       0.087          ND       0.040        ND       0.174          ND       0.020        ND       0.207          ND       0.020        ND       0.085          ND       0.020        ND       0.137          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.050        ND       0.371          ND       0.050        ND       0.262

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	2.18		ppbV		1
Acetaldehyde	2.01		ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.29		ppbV		1
Methyl Alcohol	15.8		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

**Project Number:** 101869.00 **Report Date:** 08/15/18

**SAMPLE RESULTS** 

Lab ID: L1829376-06 Date Collected: 07/26/18 12:56

Client ID: W2-072518 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

08/15/18

# SAMPLE RESULTS

Lab ID: L1829376-07

Client ID: BLANK 072518

Sample Location: QUINCY, WEYMOUTH , BRAINTREE

Date Collected: 07/26

07/26/18 00:00

Date Received: Field Prep:

07/30/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 17:25

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	ND	1.00		ND	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

08/15/18

# **SAMPLE RESULTS**

Lab ID: L1829376-07 Client ID: BLANK 072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 00:00

Date Received: 07/30/18
Field Prep: Not Specified

Parameter         Results         RL         MDL         Results         RL         MDL         Qualifier           MCP Volatile Organics in Air by SIM - Mansfield Lab           Toluene         ND         0.050          ND         0.188             Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            1,2-Dibromoethane         ND         0.020          ND         0.154            1,2-Dibromoethane         ND         0.020          ND         0.154            1,2-Dibromoethane         ND         0.020          ND         0.136            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            1,3-Dichlorobenzene         ND         0.020          ND         0.087            1,3-Dichlorobenzene         ND         0.020          ND         0.087	Factor  1 1
Toluene         ND         0.050          ND         0.188            Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethane         ND         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.085            Styrene         ND         0.020          ND         0.137            0-Xylene         ND         0.020          ND         0.087	
Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethane         ND         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.087            Styrene         ND         0.020          ND         0.137            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            o-Xylene         ND         0.020          ND         0.087	
1,2-Dibromoethane       ND       0.020        ND       0.154          Tetrachloroethene       ND       0.020        ND       0.136          Chlorobenzene       ND       0.100        ND       0.461          Ethylbenzene       ND       0.020        ND       0.087          p/m-Xylene       ND       0.040        ND       0.174          Bromoform       ND       0.020        ND       0.207          Styrene       ND       0.020        ND       0.085          1,1,2,2-Tetrachloroethane       ND       0.020        ND       0.087          o-Xylene       ND       0.020        ND       0.087	
Tetrachloroethene         ND         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            o-Xylene         ND         0.020          ND         0.087	1
Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            o-Xylene         ND         0.020          ND         0.087	1
p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
1,1,2,2-Tetrachloroethane       ND       0.020        ND       0.137          o-Xylene       ND       0.020        ND       0.087	1
o-Xylene ND 0.020 ND 0.087	1
	1
1,3-Dichlorobenzene ND 0.020 ND 0.120	1
	1
1,4-Dichlorobenzene ND 0.020 ND 0.120	1
1,2-Dichlorobenzene ND 0.020 ND 0.120	1
1,2,4-Trichlorobenzene ND 0.050 ND 0.371	1
Naphthalene ND 0.050 ND 0.262	1
Hexachlorobutadiene ND 0.050 ND 0.533	1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.55		ppbV		1
Methyl Alcohol	2.83		ppbV		1
Silanol, Trimethyl-	18.0		ppbV		1
Cyclotrisiloxane, Hexamethyl-	4.54		ppbV		1



L1829376

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Report Date: 08/15/18

Project Number: 101869.00

SAMPLE RESULTS

Lab ID: L1829376-07 Date Collected: 07/26/18 00:00

Client ID: BLANK 072518

Date Received: 07/30/18 QUINCY, WEYMOUTH , BRAINTREE Sample Location: Field Prep: Not Specified

Sample Depth:

ug/m3 ppbV Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	97		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

**Project Number:** 101869.00 **Report Date:** 08/15/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	145966-	-4	
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

**Project Number:** 101869.00 **Report Date:** 08/15/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

		ppbV					Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIN	M - Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	145966-	-4	
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

**Project Number:** 101869.00 **Report Date:** 08/15/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

		ppbV			ıg/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batch	: WG1	145966-4	1	
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



## Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1829376

Propylene	arameter	LCS %Recovery	LCS Qual %Reco		%Recovery Limits	RPD	Qual	RPD Limits
Dichlorodiffluoromethane         91         -         70-130         -           Chloromethane         87         -         70-130         -           1,2-Dichloro-1,1,2-2-tetrafluoroethane         88         -         70-130         -           Vinyl chloride         87         -         70-130         -           1,3-Butadiene         93         -         70-130         -           Bromomethane         85         -         70-130         -           Chloroethane         82         -         70-130         -           Ethyl Alcohol         106         -         70-130         -           Vinyl bromide         79         -         70-130         -           Acetone         94         -         70-130         -           Acetone         94         -         70-130         -           1,1-Dichloroethane         85         -         70-130         -           1,1-Dichloroethane         88         -         70-130         -           ter-Bulyl Alcohol¹         86         -         70-130         -           Ethyl Lyl Chloroethene         103         -         70-130         -	ICP Volatile Organics in Air by SIM - Ma	nsfield Lab Associate	ed sample(s): 01-07	Batch: WG114	45966-3			
Chloromethane         87         70-130         -           1,2-Dichloro-1,1,2,2-tetrafluoroethane         88         -         70-130         -           Vinyl chloride         87         -         70-130         -           1,3-Butadiene         93         -         70-130         -           Bromomethane         85         -         70-130         -           Chloroethane         82         -         70-130         -           Ethyl Alcohol         106         -         70-130         -           Vinyl bromide         79         -         70-130         -           Acetone         94         -         50-150         -           Iso-Propyl Alcohol         90         -         70-130         -           Iso-Propyl Alcohol         88         -         70-130         -           Iso-Propyl Alcohol         86         -         70-130         -           Methyl Alcohol*         86         -         70-130         -           S-Chloropropene         103         -         70-130         -           S-Chloropropene         103         -         70-130         -           S-Chloropropene	Propylene	89	-		70-130	-		
1,2-Dichloro-1,1,2,2-letrafluoroethane         88         .         70-130         .           Vinyl chloride         87         .         70-130         .           1,3-Butadiene         93         .         70-130         .           Bromomethane         85         .         70-130         .           Chloroethane         82         .         70-130         .           Ethyl Alcohol         106         .         70-130         .           Vinyl bromide         79         .         70-130         .           Acetone         94         .         50-150         .           Acetone         94         .         70-130         .           iso-Propyl Alcohol         90         .         70-130         .           1,1-Dichloroethene         88         .         70-130         .           tort-Butyl Alcohol*         86         .         70-130         .           Methylene chloride         94         .         70-130         .           3-Chloropropene         103         .         70-130         .           4-Ly-Trichloroethane         86         .         70-130         . <td< td=""><td>Dichlorodifluoromethane</td><td>91</td><td>-</td><td></td><td>70-130</td><td>-</td><td></td><td></td></td<>	Dichlorodifluoromethane	91	-		70-130	-		
Vinyl chloride         87         70-130         9           1,3-Butadiene         93         70-130         9           Bromomethane         85         70-130         9           Chloroethane         82         70-130         9           Ethyl Alcohol         106         70-130         9           Vinyl bromide         79         70-130         9           Acetone         94         50-150         9           Trichlorofluoromethane         85         70-130         9           1,1-Dichloroethane         86         70-130         9           1,1-Dichloroethane         86         70-130         9           1,1-Dichloroethane         86         70-130         9           3-Chloropropene         103         70-130         9           2-Chloropropene         86         70-130         9           2-Chloropropene         70-130         9	Chloromethane	87	-		70-130	-		
1,3-Butadiene         93         70-130         -           Bromomethane         85         70-130         -           Chloroethane         82         70-130         -           Ethyl Alcohol         106         70-130         -           Vinyl bromide         79         70-130         -           Acetone         94         50-150         -           Trichloroffluoromethane         85         70-130         -           iso-Propyl Alcohol         90         70-130         -           1,1-Dichloroethane         86         70-130         -           tert-Bulyl Alcohol¹         86         70-130         -           Methylene chloride         94         70-130         -           3-Chloropropene         103         70-130         -           Carbon disulfide         83         70-130         -           1,1-2-Trichloro-1,2,2-Triffuoroethane         86         70-130         -           1,1-2-Dichloroethane         85         70-130         -           1,1-Dichloroethane         87         70-130         -           1,1-Dichloroethane         87         70-130         -           1,1-Dichloroethane	1,2-Dichloro-1,1,2,2-tetrafluoroethane	88	-		70-130	-		
Bromomethane         85         -         70-130         -           Chloroethane         82         -         70-130         -           Ethyl Alcohol         106         -         70-130         -           Vinyl bromide         79         -         70-130         -           Acetone         94         -         50-150         -           Trichlorofluoromethane         85         -         70-130         -           iso-Propyl Alcohol         90         -         70-130         -           1,1-Dichloroethane         88         -         70-130         -           terr-Butyl Alcohol¹         86         -         70-130         -           Methylene chloride         94         -         70-130         -           3-Chloropropene         103         -         70-130         -           Carbon disulfide         83         -         70-130         -           1,1-2-Trichloro-1,2,2-Trifluoroethane         86         -         70-130         -           trans-1,2-Dichloroethane         85         -         70-130         -           trans-1,2-Dichloroethane         87         -         70-130         -	Vinyl chloride	87	-		70-130	-		
Chloroethane         82         70-130         -           Ethyl Alcohol         106         70-130         -           Vinyl bromide         79         70-130         -           Acetone         94         50-150         -           Trichlorofluoromethane         85         70-130         -           iso-Propyl Alcohol         90         70-130         -           1,1-Dichloroethene         88         70-130         -           tert-Butyl Alcohol¹         86         70-130         -           Methylene chloride         94         70-130         -           3-Chloropropene         103         70-130         -           Carbon disulfide         83         70-130         -           1,1,2-Trichloro-1,2,2-Trifluoroethane         86         70-130         -           trans-1,2-Dichloroethane         85         70-130         -           1,1-Dichloroethane         87         70-130         -           Methyl tert butyl ether         90         70-130         -	1,3-Butadiene	93	-		70-130	-		
Ethyl Alcohol         106         -         70-130         -           Vinyl bromide         79         -         70-130         -           Acetone         94         -         50-150         -           Trichlorofluoromethane         85         -         70-130         -           iso-Propyl Alcohol         90         -         70-130         -           1,1-Dichloroethene         88         -         70-130         -           tert-Butyl Alcohol¹         86         -         70-130         -           Methylene chloride         94         -         70-130         -           3-Chloropropene         103         -         70-130         -           Carbon disulfide         83         -         70-130         -           1,1,2-Trichloro-1,2,2-Trifluoroethane         86         -         70-130         -           trans-1,2-Dichloroethane         85         -         70-130         -           trans-1,2-Dichloroethane         87         -         70-130         -           Methyl tert butyl ether         90         -         70-130         -	Bromomethane	85	-		70-130	-		
Vinyl bromide         79         -         70-130         -           Acetone         94         -         50-150         -           Trichlorofluoromethane         85         -         70-130         -           iso-Propyl Alcohol         90         -         70-130         -           1,1-Dichloroethane         88         -         70-130         -           tert-Butyl Alcohol¹         86         -         70-130         -           Methylene chloride         94         -         70-130         -           3-Chloropropene         103         -         70-130         -           Carbon disulfide         83         -         70-130         -           1,1,2-Trichloro-1,2,2-Trifluoroethane         86         -         70-130         -           trans-1,2-Dichloroethane         85         -         70-130         -           1,1-Dichloroethane         87         -         70-130         -           Methyl tert butyl ether         90         -         70-130         -	Chloroethane	82	-		70-130	-		
Acetone         94         -         50·150         -           Trichlorofluoromethane         85         -         70·130         -           iso-Propyl Alcohol         90         -         70·130         -           1,1-Dichloroethene         88         -         70·130         -           tert-Butyl Alcohol¹         86         -         70·130         -           Methylene chloride         94         -         70·130         -           3-Chloropropene         103         -         70·130         -           Carbon disulfide         83         -         70·130         -           1,1,2-Trichloro-1,2,2-Trifluoroethane         86         -         70·130         -           trans-1,2-Dichloroethane         85         -         70·130         -           1,1-Dichloroethane         87         -         70·130         -           Methyl tert butyl ether         90         -         70·130         -	Ethyl Alcohol	106	-		70-130	-		
Trichlorofluoromethane       85       -       70-130       -         iso-Propyl Alcohol       90       -       70-130       -         1,1-Dichloroethene       88       -       70-130       -         tert-Butyl Alcohol¹       86       -       70-130       -         Methylene chloride       94       -       70-130       -         3-Chloropropene       103       -       70-130       -         Carbon disulfide       83       -       70-130       -         1,1,2-Trichloro-1,2,2-Trifluoroethane       86       -       70-130       -         trans-1,2-Dichloroethene       85       -       70-130       -         1,1-Dichloroethane       87       -       70-130       -         Methyl tert butyl ether       90       -       70-130       -	Vinyl bromide	79	-		70-130	-		
Siso-Propyl Alcohol   90   - 70-130   - 11-Dichloroethene   88   - 70-130   - 12-Dichloroethene   88   - 70-130   - 12-Dichloroethene   86   - 70-130   - 12-Dichloroethene   94   - 70-130   - 12-Dichloroethene   94   - 70-130   - 12-Dichloroethene   94   - 70-130   - 12-Dichloroethene   86   - 70-130   - 12-Dichloroethene   86   - 70-130   - 12-Dichloroethene   85   - 70-130   - 12-Dichloroethene   87   - 70-130   - 12-Dichloroethene   88   - 70-130   - 12-Dichloroethene   89   - 70-130	Acetone	94	-		50-150	-		
1,1-Dichloroethene       88       -       70-130       -         tert-Butyl Alcohol¹       86       -       70-130       -         Methylene chloride       94       -       70-130       -         3-Chloropropene       103       -       70-130       -         Carbon disulfide       83       -       70-130       -         1,1,2-Trichloro-1,2,2-Trifluoroethane       86       -       70-130       -         trans-1,2-Dichloroethene       85       -       70-130       -         1,1-Dichloroethane       87       -       70-130       -         Methyl tert butyl ether       90       -       70-130       -	Trichlorofluoromethane	85	-		70-130	-		
tert-Butyl Alcohol¹       86       -       70-130       -         Methylene chloride       94       -       70-130       -         3-Chloropropene       103       -       70-130       -         Carbon disulfide       83       -       70-130       -         1,1,2-Trichloro-1,2,2-Trifluoroethane       86       -       70-130       -         trans-1,2-Dichloroethane       85       -       70-130       -         1,1-Dichloroethane       87       -       70-130       -         Methyl tert butyl ether       90       -       70-130       -	iso-Propyl Alcohol	90	-		70-130	-		
Methylene chloride       94       -       70-130       -         3-Chloropropene       103       -       70-130       -         Carbon disulfide       83       -       70-130       -         1,1,2-Trichloro-1,2,2-Trifluoroethane       86       -       70-130       -         trans-1,2-Dichloroethane       85       -       70-130       -         1,1-Dichloroethane       87       -       70-130       -         Methyl tert butyl ether       90       -       70-130       -	1,1-Dichloroethene	88	-		70-130	-		
3-Chloropropene       103       -       70-130       -         Carbon disulfide       83       -       70-130       -         1,1,2-Trichloro-1,2,2-Trifluoroethane       86       -       70-130       -         trans-1,2-Dichloroethane       85       -       70-130       -         1,1-Dichloroethane       87       -       70-130       -         Methyl tert butyl ether       90       -       70-130       -	tert-Butyl Alcohol <sup>1</sup>	86	-		70-130	-		
Carbon disulfide       83       -       70-130       -         1,1,2-Trichloro-1,2,2-Trifluoroethane       86       -       70-130       -         trans-1,2-Dichloroethane       85       -       70-130       -         1,1-Dichloroethane       87       -       70-130       -         Methyl tert butyl ether       90       -       70-130       -	Methylene chloride	94	-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane       86       -       70-130       -         trans-1,2-Dichloroethane       85       -       70-130       -         1,1-Dichloroethane       87       -       70-130       -         Methyl tert butyl ether       90       -       70-130       -	3-Chloropropene	103	-		70-130	-		
trans-1,2-Dichloroethene     85     -     70-130     -       1,1-Dichloroethane     87     -     70-130     -       Methyl tert butyl ether     90     -     70-130     -	Carbon disulfide	83	-		70-130	-		
1,1-Dichloroethane       87       -       70-130       -         Methyl tert butyl ether       90       -       70-130       -	1,1,2-Trichloro-1,2,2-Trifluoroethane	86	-		70-130	-		
Methyl tert butyl ether 90 - 70-130 -	trans-1,2-Dichloroethene	85	-		70-130	-		
·	1,1-Dichloroethane	87	-		70-130	-		
Vinyl acetate 103 - 70-130 -	Methyl tert butyl ether	90	-		70-130	-		
	Vinyl acetate	103	-		70-130	-		

## Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1829376

Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mans	field Lab Associa	ated sample(s):	01-07	Batch:	WG11459	966-3			
2-Butanone	94		-			70-130	-		
cis-1,2-Dichloroethene	87		-			70-130	-		
Ethyl Acetate	92		-			70-130	-		
Chloroform	89		-			70-130	-		
Tetrahydrofuran	86		-			70-130	-		
1,2-Dichloroethane	89		-			70-130	-		
n-Hexane	99		-			70-130	-		
1,1,1-Trichloroethane	98		-			70-130	-		
Benzene	92		-			70-130	-		
Carbon tetrachloride	98		-			70-130	-		
Cyclohexane	99		-			70-130	-		
Dibromomethane <sup>1</sup>	80		-			70-130	-		
1,2-Dichloropropane	94		-			70-130	-		
Bromodichloromethane	97		-			70-130	-		
1,4-Dioxane	100		-			50-150	-		
Trichloroethene	91		-			70-130	-		
2,2,4-Trimethylpentane	108		-			70-130	-		
cis-1,3-Dichloropropene	98		-			70-130	-		
4-Methyl-2-pentanone	108		-			70-130	-		
trans-1,3-Dichloropropene	86		-			70-130	-		
1,1,2-Trichloroethane	94		-			70-130	-		
Toluene	90		-			70-130	-		
2-Hexanone	100		-			70-130	-		

## Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1829376

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
CP Volatile Organics in Air by SIM - Mansfi	eld Lab Associa	ated sample(s):	01-07	Batch:	WG11459	66-3			
Dibromochloromethane	98		-			70-130	-		
1,2-Dibromoethane	90		-			70-130	-		
Tetrachloroethene	88		-			70-130	-		
Chlorobenzene	91		-			70-130	-		
Ethylbenzene	93		-			70-130	-		
p/m-Xylene	96		-			70-130	-		
Bromoform	97		-			70-130	-		
Styrene	95		-			70-130	-		
1,1,2,2-Tetrachloroethane	97		-			70-130	-		
o-Xylene	99		-			70-130	-		
1,2,3-Trichloropropane <sup>1</sup>	90		-			70-130	-		
Bromobenzene <sup>1</sup>	91		-			70-130	-		
1,3,5-Trimethylbenzene	101		-			70-130	-		
1,2,4-Trimethylbenzene	108		-			70-130	-		
Benzyl chloride	100		-			70-130	-		
1,3-Dichlorobenzene	102		-			70-130	-		
1,4-Dichlorobenzene	102		-			70-130	-		
1,2-Dichlorobenzene	105		-			70-130	-		
1,2,4-Trichlorobenzene	104		-			50-150	-		
Naphthalene	99		-			50-150	-		
1,2,3-Trichlorobenzene	101		-			70-130	-		
Hexachlorobutadiene	121		-			50-150	-		



# Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1829376

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab 072518-2	Associated sample(s):	01-07 QC Batch ID:	WG1145966-5	QC Sample:	L1829376-02 Client ID: Q1-
Vinyl chloride	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Acetone	2.20	2.06	ppbV	7	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Chloroform	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.071	0.070	ppbV	1	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25



### Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1829376

Report Date:

08/15/18

arameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
ICP Volatile Organics in Air by SIM - Mansfield Lab 72518-2	Associated sample(s):	01-07 QC Batch ID:	WG1145966-5	QC Sample:	: L1829376-02 Client ID: Q1
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.056	0.054	ppbV	4	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Naphthalene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25



BAW - WEYMOUTH FORE RIVER L1829376

Project Number: 101869.00 Report Date: 08/15/18

#### **Canister and Flow Controller Information**

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Pressure (in. Hg)	on Receipt (in. Hg)	Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1829376-01	Q1-072518-1	0147	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.6	9
L1829376-01	Q1-072518-1	2322	6.0L Can	07/24/18	269578	L1827582-03	Pass	-29.7	-5.5	-	-	-	-
L1829376-02	Q1-072518-2	0058	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.8	14
L1829376-02	Q1-072518-2	1547	6.0L Can	07/24/18	269578	L1827582-01	Pass	-29.6	-4.9	-	-	-	-
L1829376-03	B1-072518	01068	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.6	9
L1829376-03	B1-072518	786	6.0L Can	07/24/18	269578	L1827856-03	Pass	-30.0	-9.3	-	-	-	-
L1829376-04	W1-072518	0682	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.7	11
L1829376-04	W1-072518	1993	6.0L Can	07/24/18	269578	L1827582-02	Pass	-29.8	-6.3	-	-	-	-
L1829376-05	H1-072518	0335	Flow 5	07/24/18	269578		-	-	-	Pass	3.2	3.1	3
L1829376-05	H1-072518	1691	6.0L Can	07/24/18	269578	L1827856-01	Pass	-30.0	-11.7	-	-	-	-
L1829376-06	W2-072518	0118	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.7	11
L1829376-06	W2-072518	753	6.0L Can	07/24/18	269578	L1827856-02	Pass	-30.0	-5.2	-	-	-	-
L1829376-07	BLANK 072518	0729	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.9	17
L1829376-07	BLANK 072518	2046	6.0L Can	07/24/18	269578	L1827433-02	Pass	-29.7	-29.6	-	-	-	-



Project Name:

L1827433

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: **CAN 2046 SHELF 49** Date Received: 07/18/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/18/18 17:11

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827433

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: CAN 2046 SHELF 49 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827433

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: CAN 2046 SHELF 49 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827433

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: CAN 2046 SHELF 49 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Volatile Organics in Air - Mansfield Lab  Nonane ND 0.200 ND  Isopropylbenzene ND 0.200 ND	1.05 0.983 0.793	Factor 1
Nonane         ND         0.200          ND           Isopropylbenzene         ND         0.200          ND	0.983	
Isopropylbenzene ND 0.200 ND	0.983	
		4
Bromobenzene ND 0.200 ND	0.793	1
		1
2-Chlorotoluene ND 0.200 ND	1.04	1
n-Propylbenzene ND 0.200 ND	0.983	1
4-Chlorotoluene ND 0.200 ND	1.04	1
4-Ethyltoluene ND 0.200 ND	0.983	1
1,3,5-Trimethylbenzene ND 0.200 ND	0.983	1
ert-Butylbenzene ND 0.200 ND	1.10	1
,2,4-Trimethylbenzene ND 0.200 ND	0.983	1
Decane ND 0.200 ND	1.16	1
Benzyl chloride ND 0.200 ND	1.04	1
,3-Dichlorobenzene ND 0.200 ND	1.20	1
,4-Dichlorobenzene ND 0.200 ND	1.20	1
sec-Butylbenzene ND 0.200 ND	1.10	1
o-Isopropyltoluene ND 0.200 ND	1.10	1
1,2-Dichlorobenzene ND 0.200 ND	1.20	1
n-Butylbenzene ND 0.200 ND	1.10	1
1,2-Dibromo-3-chloropropane ND 0.200 ND	1.93	1
Undecane ND 0.200 ND	1.28	1
Dodecane ND 0.200 ND	1.39	1
,2,4-Trichlorobenzene ND 0.200 ND	1.48	1
Naphthalene ND 0.200 ND	1.05	1
1,2,3-Trichlorobenzene ND 0.200 ND	1.48	1
Hexachlorobutadiene ND 0.200 ND	2.13	1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827433

Project Number: CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827433-02

Client ID: CAN 2046 SHELF 49

Sample Location:

Date Collected:

07/18/18 09:00

Date Received:

07/18/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	88		60-140



L1827433

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: **CAN 2046 SHELF 49** Date Received: 07/18/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/18/18 17:11

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results         RL           sfield Lab         ND         0.200           ND         0.200         ND         0.050           ND         0.020         ND         0.020           ND         0.020         ND         0.100           ND         0.100         ND         1.00           ND         0.500         ND         0.500           ND         0.020         ND         0.050           ND         0.050         ND         0.020           ND         0.020         ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.500          ND         0.020            ND         0.050          ND         0.020            ND         0.020          ND         0.020	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1827433

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: CAN 2046 SHELF 49 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827433

Project Number: CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827433-02

Client ID: CAN 2046 SHELF 49 Date Received: Sample Location: Field Prep:

Date Received: 07/18/18
Field Prep: Not Specified

07/18/18 09:00

Date Collected:

• •		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Nansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/19/18 11:02

Analyst: MB

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Запре Бериі.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lat	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827582

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	86		60-140



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/19/18 11:02

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827582

Project Number: CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-01

Client ID: CAN 1547 SHELF 46

Sample Location:

Date Collected: 07/18/18 16:00 Date Received: 07/19/18

Field Prep: Not Specified

Campic Doptii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	86		60-140



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/19/18 11:35

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Foluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827582

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep:

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827582

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received:

07/19/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution Factor Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	84		60-140



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/19/18 11:35

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827582

Project Number: CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-02

Client ID: CAN 1993 SHELF 47

Sample Location:

Date Collected: 07/18/18 16:00 Date Received: 07/19/18

Field Prep: Not Specified

Parameter		ppbV		ug/m3				Dilution
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/19/18 12:07

Analyst: MB

		ppbV		ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

#### **Air Canister Certification Results**

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Запре Верш.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827582

Not Specified

Lab Number:

Field Prep:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location:

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827582

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution Factor Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	89		60-140



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/19/18 12:07

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results         RL           sfield Lab         ND         0.200           ND         0.200         ND         0.050           ND         0.020         ND         0.020           ND         0.020         ND         0.100           ND         0.100         ND         1.00           ND         0.500         ND         0.500           ND         0.020         ND         0.050           ND         0.050         ND         0.020           ND         0.020         ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.050          ND         0.020            ND         0.0500          ND         0.020            ND         0.020          ND         0.02	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1827582

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



07/18/18 16:00

Date Collected:

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827582

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827582-03

Client ID: CAN 2322 SHELF 51 Date Received:

07/19/18 Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	89		60-140



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/20/18 16:45

Analyst: GJ

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

	Vdqq		ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Volatile Organics in Air - Mansfield Lab  Nonane ND 0.200 ND  Isopropylbenzene ND 0.200 ND	1.05 0.983 0.793	Factor 1
Nonane         ND         0.200          ND           Isopropylbenzene         ND         0.200          ND	0.983	
Isopropylbenzene ND 0.200 ND	0.983	
		4
Bromobenzene ND 0.200 ND	0.793	1
		1
2-Chlorotoluene ND 0.200 ND	1.04	1
n-Propylbenzene ND 0.200 ND	0.983	1
4-Chlorotoluene ND 0.200 ND	1.04	1
4-Ethyltoluene ND 0.200 ND	0.983	1
1,3,5-Trimethylbenzene ND 0.200 ND	0.983	1
ert-Butylbenzene ND 0.200 ND	1.10	1
,2,4-Trimethylbenzene ND 0.200 ND	0.983	1
Decane ND 0.200 ND	1.16	1
Benzyl chloride ND 0.200 ND	1.04	1
,3-Dichlorobenzene ND 0.200 ND	1.20	1
,4-Dichlorobenzene ND 0.200 ND	1.20	1
sec-Butylbenzene ND 0.200 ND	1.10	1
o-Isopropyltoluene ND 0.200 ND	1.10	1
1,2-Dichlorobenzene ND 0.200 ND	1.20	1
n-Butylbenzene ND 0.200 ND	1.10	1
1,2-Dibromo-3-chloropropane ND 0.200 ND	1.93	1
Undecane ND 0.200 ND	1.28	1
Dodecane ND 0.200 ND	1.39	1
,2,4-Trichlorobenzene ND 0.200 ND	1.48	1
Naphthalene ND 0.200 ND	1.05	1
1,2,3-Trichlorobenzene ND 0.200 ND	1.48	1
Hexachlorobutadiene ND 0.200 ND	2.13	1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827856

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: **CAN 1691 SHELF 56** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution Factor Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	104		60-140
chlorobenzene-d5	100		60-140



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/20/18 16:45

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mans	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



07/19/18 16:00

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827856

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-01

Date Collected: Client ID: CAN 1691 SHELF 56 Date Received:

07/20/18 Sample Location: Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	100		60-140



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-02

Client ID: CAN 753 SHELF 57

Sample Location:

Date Collected: 07/19/18 16:00 Date Received: 07/20/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/20/18 17:18

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827856

07/19/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-02

Client ID: CAN 753 SHELF 57 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-02

Date Collected: 07/19/18 16:00 Client ID: CAN 753 SHELF 57 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-02

Date Collected: 07/19/18 16:00 Client ID: CAN 753 SHELF 57 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



L1827856

07/19/18 16:00

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

**Air Canister Certification Results** 

Lab ID: L1827856-02

Date Collected: Client ID: **CAN 753 SHELF 57** Date Received:

07/20/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution Factor Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	94		60-140



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-02

Date Collected: 07/19/18 16:00 Client ID: CAN 753 SHELF 57 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/20/18 17:18

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-02

Date Collected: 07/19/18 16:00 Client ID: CAN 753 SHELF 57 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

·		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827856

Project Number: CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-02

Client ID: CAN 753 SHELF 57 Dat

Date Received: 07/20/18
Field Prep: Not Specified

07/19/18 16:00

Date Collected:

Sample Depth:

Sample Location:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140



**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-03

Client ID: **CAN 786 SHELF 58** 

Sample Location:

Date Collected: 07/19/18 16:00 Date Received: 07/20/18

Field Prep:

Lab Number:

Not Specified

L1827856

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date:

07/20/18 17:51

Analyst: GJ

		ppbV		ug/m3 IDL Results RL MDL Qua			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfi	eld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	Results         RL           ND         1.52           ND         1.74           ND         0.626           ND         0.623           ND         1.53           ND         0.793		Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827856

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location: Field Prep:

Запре Верш.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results			Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.		ppbV			ug/m3 Results RL MDL Qu			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05		1	
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827856

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

**Air Canister Certification Results** 

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: CAN 786 SHELF 58 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution Factor Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	97		60-140



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received:

Sample Location:

07/20/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM 07/20/18 17:51 Analytical Date:

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827856

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number:

Lab Number: L1827856

Project Number: CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1827856-03

Client ID: CAN 786 SHELF 58

Sample Location:

Date Collected:

07/19/18 16:00

Date Received:

07/20/18

Field Prep:

Not Specified

Campic Doptii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	97		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1829376

**Project Number:** 101869.00 **Report Date:** 08/15/18

# Sample Receipt and Container Information

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal

N/A Absent

Container Info	Container Information			Final	Temp			Frozen				
Container ID	Container Type	Cooler	Initial pH	рН	deg C	Pres	Seal	Date/Time	Analysis(*)			
L1829376-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)			
L1829376-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)			
L1829376-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)			
L1829376-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)			
L1829376-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)			
L1829376-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)			
L1829376-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)			



**Project Name:** Lab Number: BAW - WEYMOUTH FORE RIVER L1829376 101869.00 **Report Date: Project Number:** 08/15/18

#### GLOSSARY

#### Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

**EMPC** - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case

estimate of the concentration.

**EPA** - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

**MDL** - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for

which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

**RPD** - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the

precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEO - Toxic Equivalent: The measure of a sample is toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound

list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

#### **Footnotes**

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1829376Project Number:101869.00Report Date:08/15/18

#### Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- $\label{eq:MCPCAM} \textbf{M} \qquad \text{-Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.}$
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- **ND** Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1829376Project Number:101869.00Report Date:08/15/18

#### REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

#### **LIMITATION OF LIABILITIES**

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:17873 Revision 11

Published Date: 1/8/2018 4:15:49 PM

Page 1 of 1

#### Certification Information

#### The following analytes are not included in our Primary NELAP Scope of Accreditation:

#### Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: DW: Bromide EPA 6860: SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

#### **Mansfield Facility**

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

#### The following analytes are included in our Massachusetts DEP Scope of Accreditation

#### Westborough Facility:

#### **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

#### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-B, E, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM450P-B, EPA 351.1, SM4500P-B, EPA 351.1, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.

#### **Mansfield Facility:**

#### **Drinking Water**

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

#### Non-Potable Water

**EPA 200.7**: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

ΔLPH	AIR A CHAIN OF CUSTODY	NALYSIS	PAG	E_/_OF_/	Date	Rec'd in I	Lab:	7/3	1/18		ALPHA J	lob#: U	829	376
	Mansfield, MA 02048	Project Inform	Mark Mark III		Rep	ort Infor	mation	- Data	Delivera	bles	Billing In	formation		
TEL: 508-822-93	300 FAX: 508-822-3288	Project Name: [	ore Riven	Study	□ F/	AX	1				☐ Same as		PO#.	
Client Informa	tion	Project Location:	Quincy, W	ymosh, BA	she A	DEx Criteria C	hookor							
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37 Shattua	k St, Lawerce M	ALPHA Quote #:				Iditional D					State/Fed	Program		es / Comm
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Email: Thomas	MCGRAMOSAL M	Standard	RUSH (only confe	med if pre-approved!)							ANA	LYSIS		
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rroject-Speciii	ic Target Compound List:	1								/	/ / /	(d)		
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.04	WI-072518	7/2/10 1219	12197	212-017	111	Bje	64	100	0/00	~		h	13	
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, 01	Blank 2046811	7/26/18	NA		AA	Byw	66	2046		×		n	N	17
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*******	A	A ≈ Ambient Air (Indo	or/Outdoor)											
SAMPL	E MATRIX CODES	V = Soil Vapor/Landfill ther = Please Specify	Gas/SVE			Co	ontainer	Туре					nt clearly, leg	
		Relinquished By:		Date/Time		Possi	and D			-	T	logged in	y. Samples o	nd time
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	Sep-15)	PA	AL 7/30/	8 16:00		3	21	1	1 30	30/18	1:34		are subject to Conditions.	Alpha's



			Fore River Study I	Field Form 6/2018			
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llect Date:							
. In	0 11 11						1
ate ID	Canister Id	Regulator ID	Start Time (DST)	- 30 2	Collect Time (DST)	End Vacuum	Comments/Observations Comments
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B	2006	03/5		(-27.30	9-13:00	PIA	earthmer/ngins
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WI	1993	0682	12/19+	29.62	1219 dst	-6,54/-5,50	condensation inside , L. I
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						Sitelds	H1= MWRA Pumping Station, Hingham
							W1 = Weymouth Power Plant
							W2 = Embridge Site
							B1 = BELD Property
							Q1 = Clement O'Brien Tower



#### ANALYTICAL REPORT

Lab Number: L1830289

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Thomas McGrath

Lawrence, MA 01843

Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 08/15/18

ATTN:

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Number: 101869.00

Lab Number:

L1830289

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1830289-01	Q1-073118-1	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 11:00	08/03/18
L1830289-02	Q1-073118-2	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 11:00	08/03/18
L1830289-03	B1-073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 11:29	08/03/18
L1830289-04	W1-073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 11:47	08/03/18
L1830289-05	H1-073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 12:15	08/03/18
L1830289-06	W2-073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 12:40	08/03/18
L1830289-07	BLANK 073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 00:00	08/03/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

**Project Number:** 101869.00 **Report Date:** 08/15/18

#### **MADEP MCP Response Action Analytical Report Certification**

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A res	sponse to questions G, H and I is required for "Presumptive Certainty" status	
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
ı	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1830289Project Number:101869.00Report Date:08/15/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.	



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1830289Project Number:101869.00Report Date:08/15/18

#### **Case Narrative (continued)**

MCP Related Narratives

Canisters were released from the laboratory on July 30, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative Date: 08/15/18

Christopher J. Anderson

## **AIR**



L1830289

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 08/15/18

**SAMPLE RESULTS** 

Lab ID: L1830289-01 Date Collected: 08/01/18 11:00

Client ID: Q1-073118-1 Date Received: 08/03/18 Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 22:06

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	3.05	1.00		7.25	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	0.880	0.500		3.06	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.027	0.020		0.132	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.073	0.020		0.459	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

08/15/18

#### **SAMPLE RESULTS**

Lab ID: L1830289-01 Client ID: Q1-073118-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:00

Date Received: 08/03/18
Field Prep: Not Specified

Sample Depth:

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
И - Mansfield	Lab						
0.216	0.050		0.814	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
0.039	0.020		0.169	0.087			1
0.121	0.040		0.526	0.174			1
ND	0.020		ND	0.207			1
0.024	0.020		0.102	0.085			1
ND	0.020		ND	0.137			1
0.050	0.020		0.217	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	M - Mansfield  0.216  ND  ND  ND  ND  0.039  0.121  ND  0.024  ND  0.050  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results         RL           M - Mansfield Lab           0.216         0.050           ND         0.020           ND         0.020           ND         0.100           0.039         0.020           ND         0.050           ND         0.050           ND         0.050           ND         0.050	Results         RL         MDL           M - Mansfield Lab         0.216         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            0.039         0.020            ND         0.050            ND         0.050            ND         0.050	Results         RL         MDL         Results           M - Mansfield Lab         0.216         0.050          0.814           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           0.039         0.020          0.169           0.121         0.040          0.526           ND         0.020          ND           0.024         0.020          ND           0.050         0.020          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.050          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           M - Mansfield Lab         0.216         0.050          0.814         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           0.039         0.020          ND         0.087           0.121         0.040          0.526         0.174           ND         0.020          ND         0.207           0.024         0.020          ND         0.137           0.050         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.050          ND         0.37	Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         0.216         0.050          0.814         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.039         0.020          0.169         0.087            0.121         0.040          0.526         0.174            ND         0.020          ND         0.207            0.024         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND	Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab         0.216         0.050          0.814         0.188             ND         0.020          ND         0.170             ND         0.020          ND         0.154             ND         0.020          ND         0.136             ND         0.100          ND         0.461             0.039         0.020          ND         0.087            0.121         0.040          0.526         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120

	Results	Qualifier Unit	s RDL	Dilution Factor
Tentatively Identified Compounds				
Unknown	1.30	ppl	٥V	1
Unknown	1.18	ppk	νV	1
Disiloxane, hexamethyl-	2.08	ppl	οV	1
Cyclotrisiloxane, Hexamethyl-	54.7	ppl	οV	1
Unknown	27.9	ppk	٥V	1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

**Project Number:** 101869.00 **Report Date:** 08/15/18

SAMPLE RESULTS

Lab ID: L1830289-01

Client ID: Q1-073118-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:00

Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
Silanol, Trimethyl-	257		ppbV		1
Methyl Alcohol	4.06		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	84		60-140



L1830289

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 Repor

**Report Date:** 08/15/18

**SAMPLE RESULTS** 

Lab ID: L1830289-02

Client ID: Q1-073118-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:00 Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 22:41

Analyst: MB

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	3.16	1.00		7.51	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.023	0.020		0.112	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.072	0.020		0.453	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



L1830289

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

**Report Date:** 08/15/18

#### **SAMPLE RESULTS**

Lab ID: L1830289-02 Client ID: Q1-073118-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:00

Date Received: 08/03/18
Field Prep: Not Specified

Sample Depth:

PpbV				ug/m3		Dilution	
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
l - Mansfield	Lab						
0.138	0.050		0.520	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
0.022	0.020		0.096	0.087			1
0.061	0.040		0.265	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
0.024	0.020		0.104	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND N	Results         RL           1 - Mansfield Lab           0.138         0.050           ND         0.020           ND         0.020           ND         0.100           0.022         0.020           ND         0.050           ND         0.050           ND         0.050	Results         RL         MDL           1 - Mansfield Lab         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            0.022         0.020            ND         0.050            ND         0.050	Results         RL         MDL         Results           I - Mansfield Lab         0.138         0.050          0.520           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           0.022         0.020          ND           0.061         0.040          0.265           ND         0.020          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           1 - Mansfield Lab         0.138         0.050          0.520         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           0.022         0.020          ND         0.087           0.061         0.040          0.265         0.174           ND         0.020          ND         0.085           ND         0.020          ND         0.137           0.024         0.020          ND         0.120           ND         0.050          ND         0.371 </td <td>Results         RL         MDL         Results         RL         MDL           I - Mansfield Lab         0.138         0.050          0.520         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.022         0.020          ND         0.087            0.061         0.040          0.265         0.174            ND         0.020          ND         0.087            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         <td< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           I - Mansfield Lab           0.138         0.050          0.520         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.022         0.020          ND         0.461            0.021         0.020          ND         0.461            ND         0.020          ND         0.207            ND         0.020          ND         0.087            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020</td></td<></td>	Results         RL         MDL         Results         RL         MDL           I - Mansfield Lab         0.138         0.050          0.520         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.022         0.020          ND         0.087            0.061         0.040          0.265         0.174            ND         0.020          ND         0.087            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND <td< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           I - Mansfield Lab           0.138         0.050          0.520         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.022         0.020          ND         0.461            0.021         0.020          ND         0.461            ND         0.020          ND         0.207            ND         0.020          ND         0.087            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020</td></td<>	Results         RL         MDL         Results         RL         MDL         Qualifier           I - Mansfield Lab           0.138         0.050          0.520         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.022         0.020          ND         0.461            0.021         0.020          ND         0.461            ND         0.020          ND         0.207            ND         0.020          ND         0.087            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Ethyl Alcohol	1.04		ppbV		1
Silanol, Trimethyl-	2.00		ppbV		1
Unknown	1.41		ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.42		ppbV		1
Methyl Alcohol	1.92		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

**Project Number:** 101869.00 **Report Date:** 08/15/18

**SAMPLE RESULTS** 

Lab ID: L1830289-02 Date Collected: 08/01/18 11:00

Client ID: Q1-073118-2 Date Received: 08/03/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard% RecoveryQualifierAcceptance Criteria1,4-difluorobenzene8160-140bromochloromethane8660-140chlorobenzene-d58460-140



Project Number: 101869.00

Lab Number: L1830289

**Report Date:** 08/15/18

#### **SAMPLE RESULTS**

Lab ID: L1830289-03

Client ID: B1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:29

Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 23:15

Analyst: MB

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	4.35	1.00		10.3	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.028	0.020		0.137	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.072	0.020		0.453	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

08/15/18

#### **SAMPLE RESULTS**

Lab ID: L1830289-03 Client ID: B1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:29

Date Received: 08/03/18
Field Prep: Not Specified

Sample Depth:

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
1 - Mansfield	Lab						
0.115	0.050		0.433	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
ND	0.040		ND	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND N	Results         RL           M - Mansfield Lab           0.115         0.050           ND         0.020           ND         0.020           ND         0.100           ND         0.020           ND         0.050           ND         0.050	Results         RL         MDL           M - Mansfield Lab         0.115         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            ND         0.020            ND         0.050            ND         0.050            ND         0.050	Results         RL         MDL         Results           M - Mansfield Lab         0.115         0.050          0.433           ND         0.020          ND           ND         0.050          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           M - Mansfield Lab         0.115         0.050          0.433         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           ND         0.020          ND         0.087           ND         0.040          ND         0.174           ND         0.020          ND         0.087           ND         0.020          ND         0.085           ND         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120 <td>Results         RL         MDL         Results         RL         MDL           A - Mansfield Lab         0.115         0.050          0.433         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120<td>Results         RL         MDL         Results         RL         MDL         Qualifier           // - Mansfield Lab           0.115         0.050          0.433         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020         -</td></td>	Results         RL         MDL         Results         RL         MDL           A - Mansfield Lab         0.115         0.050          0.433         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120 <td>Results         RL         MDL         Results         RL         MDL         Qualifier           // - Mansfield Lab           0.115         0.050          0.433         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020         -</td>	Results         RL         MDL         Results         RL         MDL         Qualifier           // - Mansfield Lab           0.115         0.050          0.433         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020         -

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.14		ppbV		1
Silanol, Trimethyl-	1.30		ppbV		1
Unknown	1.25		ppbV		1
Unknown Hydrocarbon	1.13		ppbV		1
Methyl Alcohol	1.37		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

**Project Number:** 101869.00 **Report Date:** 08/15/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 08/01/18 11:29

Client ID: B1-073118 Date Received: 08/03/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	83		60-140



**Project Number:** 101869.00

Lab Number: L1830289

**Report Date:** 08/15/18

#### **SAMPLE RESULTS**

Lab ID: L1830289-04

Client ID: W1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:47 Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 23:50

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	2.96	1.00		7.03	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.024	0.020		0.117	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.073	0.020		0.459	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1830289

**Report Date:** 08/15/18

#### **SAMPLE RESULTS**

Lab ID: L1830289-04 Client ID: W1-073118

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:47

Date Received: 08/03/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.102	0.050		0.384	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	2.05		Vdqq		1



L1830289

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/15/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 08/01/18 11:47

Client ID: W1-073118 Date Received: 08/03/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	82		60-140



Project Number: 101869.00

Lab Number:

L1830289

**Report Date:** 08/15/18

#### SAMPLE RESULTS

Lab ID: L1830289-05

Client ID: H1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 12:15 Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/14/18 00:25

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	3.76	1.00		8.93	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.023	0.020		0.112	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.075	0.020		0.472	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

08/15/18

### **SAMPLE RESULTS**

Lab ID: L1830289-05 Client ID: H1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 12:15

Date Received: 08/03/18
Field Prep: Not Specified

Sample Depth:

Vdqq			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
l - Mansfield	Lab						
0.148	0.050		0.558	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
0.056	0.040		0.243	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
0.022	0.020		0.096	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND N	Results         RL           I - Mansfield Lab           0.148         0.050           ND         0.020           ND         0.020           ND         0.100           ND         0.020           ND         0.050           ND         0.050	Results         RL         MDL           I - Mansfield Lab         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            ND         0.020            ND         0.050            ND         0.050            ND         0.050	Results         RL         MDL         Results           I - Mansfield Lab         0.050          0.558           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.020          ND           ND         0.050	Results         RL         MDL         Results         RL           I - Mansfield Lab         0.148         0.050          0.558         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           ND         0.020          ND         0.087           0.056         0.040          0.243         0.174           ND         0.020          ND         0.087           ND         0.020          ND         0.137           0.022         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.050          ND         0.371	Results         RL         MDL         Results         RL         MDL           I - Mansfield Lab         0.148         0.050          0.558         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.020          ND         0.207            ND         0.020          ND         0.087            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120 <td>Results         RL         MDL         Results         RL         MDL         Qualifier           I - Mansfield Lab           0.148         0.050          0.558         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            0.056         0.040          0.243         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020</td>	Results         RL         MDL         Results         RL         MDL         Qualifier           I - Mansfield Lab           0.148         0.050          0.558         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            0.056         0.040          0.243         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown Hydrocarbon	1.27		ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.08		ppbV		1
Methyl Alcohol	2.29		ppbV		1
Furan, tetrahydro-	1.10		ppbV		1
Unknown	1.49		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

**Project Number:** 101869.00 **Report Date:** 08/15/18

SAMPLE RESULTS

Lab ID: Date Collected: 08/01/18 12:15

Client ID: H1-073118 Date Received: 08/03/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	6.65		ppbV		1
Ethyl Alcohol	1.08		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	83		60-140



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

08/15/18

#### SAMPLE RESULTS

Lab ID: L1830289-06

Client ID: W2-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/01/18 12:40

Date Received: Field Prep:

08/03/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/14/18 01:00

Analyst: MB

		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	3.38	1.00		8.03	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.024	0.020		0.117	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.073	0.020		0.459	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

08/15/18

### **SAMPLE RESULTS**

Lab ID: L1830289-06 Client ID: W2-073118

Sample Location: QUINCY V

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 12:40

Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

ppbV			ug/m3		Dilution		
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
1 - Mansfield	Lab						
0.225	0.050		0.848	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
0.036	0.020		0.156	0.087			1
0.117	0.040		0.508	0.174			1
ND	0.020		ND	0.207			1
0.030	0.020		0.128	0.085			1
ND	0.020		ND	0.137			1
0.045	0.020		0.195	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
0.077	0.050		0.404	0.262			1
ND	0.050		ND	0.533			1
	ND ND ND 0.036 ND	Results         RL           M - Mansfield Lab         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           0.036         0.020           ND         0.050           0.077         0.050	Results         RL         MDL           M - Mansfield Lab            0.225         0.050            ND         0.020            ND         0.020            ND         0.100            0.036         0.020            ND         0.040            ND         0.020            ND         0.050            ND         0.050            0.077         0.050	Results         RL         MDL         Results           M - Mansfield Lab         0.225         0.050          0.848           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           0.036         0.020          0.156           0.117         0.040          0.508           ND         0.020          ND           0.030         0.020          ND           0.045         0.020          ND           ND         0.050          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           M - Mansfield Lab         0.225         0.050          0.848         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           0.036         0.020          ND         0.461           0.036         0.020          ND         0.174           ND         0.020          ND         0.207           0.030         0.020          ND         0.128         0.085           ND         0.020          ND         0.137         0.045         0.020          ND         0.120           ND         0.020          ND         0.120         ND         0.120           ND         0.020          ND         0.120         ND         0.120           ND         0.020          ND         0.120         ND <td< td=""><td>Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         0.225         0.050          0.848         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.100          ND         0.461            0.036         0.020          0.156         0.087            0.117         0.040          0.508         0.174            ND         0.020          ND         0.207            0.030         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND</td><td>Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab         0.225         0.050          0.848         0.188             ND         0.020          ND         0.170             ND         0.020          ND         0.154             ND         0.020          ND         0.136             ND         0.100          ND         0.461             0.036         0.020          ND         0.461             0.117         0.040          0.508         0.174             ND         0.020          ND         0.207             ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020         &lt;</td></td<>	Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         0.225         0.050          0.848         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.100          ND         0.461            0.036         0.020          0.156         0.087            0.117         0.040          0.508         0.174            ND         0.020          ND         0.207            0.030         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND	Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab         0.225         0.050          0.848         0.188             ND         0.020          ND         0.170             ND         0.020          ND         0.154             ND         0.020          ND         0.136             ND         0.100          ND         0.461             0.036         0.020          ND         0.461             0.117         0.040          0.508         0.174             ND         0.020          ND         0.207             ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020         <

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Ethyl Alcohol	1.21		ppbV		1
Methyl Alcohol	2.26		ppbV		1
unknown alkane	6.10		ppbV		1
Decane (C10)	2.95		ppbV		1
Unknown	1.19		ppbV		1



•\*\* 404000

Lab Number:

L1830289

Project Number: 101869.00

**Report Date:** 08/15/18

#### **SAMPLE RESULTS**

MDL

Lab ID: L1830289-06 Client ID: W2-073118

Date Collected: 0

08/01/18 12:40

Sample Location:

QUINCY WEYMOUTH BRAINTREE

Results

Date Received: Field Prep:

08/03/18 Not Specified

Sample Depth:

**Parameter** 

ppbV

RL

ug/m3

Results

RL

MDL Qualifier

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
unknown alkane	1.20		ppbV		1
Unknown	2.19		ppbV		1
Unknown	3.47		ppbV		1
Unknown Hydrocarbon	1.29		ppbV		1
Silanol, Trimethyl-	1.16		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	84		60-140



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

08/15/18

#### SAMPLE RESULTS

Lab ID: L1830289-07

Client ID: BLANK 073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 00:00 Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 16:50

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	ND	1.00		ND	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00 Lab Number:

L1830289

Report Date:

08/15/18

### **SAMPLE RESULTS**

Lab ID: L1830289-07 Client ID: BLANK 073118

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Collected: 08/01/18 00:00

08/03/18

Date Received: Field Prep: Not Specified

Sample Depth:

Results M - Mansfield	RL	MDL	Results	-			Footor
M - Mansfield			resuits	RL	MDL	Qualifier	Factor
	Lab						
ND	0.050		ND	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
ND	0.040		ND	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND N	ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         0.020           ND         0.040           ND         0.020           ND         0.050           ND         0.050	ND       0.050          ND       0.020          ND       0.020          ND       0.100          ND       0.100          ND       0.020          ND       0.050          ND       0.050	ND       0.050        ND         ND       0.020        ND         ND       0.020        ND         ND       0.020        ND         ND       0.100        ND         ND       0.020        ND         ND       0.040        ND         ND       0.020        ND         ND       0.050        ND	ND         0.050          ND         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           ND         0.020          ND         0.087           ND         0.040          ND         0.174           ND         0.020          ND         0.207           ND         0.020          ND         0.085           ND         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.050          ND         0.371           ND         0.050          ND         0.262	ND         0.050          ND         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120	ND       0.050        ND       0.188          ND       0.020        ND       0.170          ND       0.020        ND       0.154          ND       0.020        ND       0.136          ND       0.100        ND       0.461          ND       0.020        ND       0.087          ND       0.040        ND       0.174          ND       0.020        ND       0.207          ND       0.020        ND       0.085          ND       0.020        ND       0.137          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.020        ND       0.120          ND       0.050        ND       0.371          ND       0.

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.02		Vdqq		1



L1830289

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Report Date:

Project Number: 101869.00 08/15/18

SAMPLE RESULTS

Lab ID: L1830289-07

Client ID: **BLANK 073118** 

QUINCY WEYMOUTH BRAINTREE Sample Location:

Date Collected: 08/01/18 00:00

Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

ug/m3 ppbV Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	104		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

**Project Number:** 101869.00 **Report Date:** 08/15/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

		ppbV		ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM -	· Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	145966-	4	
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

**Project Number:** 101869.00 **Report Date:** 08/15/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

		ppbV				Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SII	M - Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	145966-	-4	
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

**Project Number:** 101869.00 **Report Date:** 08/15/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

		ppbV				Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for s	ample(s):	01-07 Batch	: WG1	145966-4	4	
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1830289

Parameter	LCS %Recovery	Qual %	LCSD Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Ma	ansfield Lab Associa	ated sample(s): 0	1-07 Batch	n: WG11459	66-3			
Propylene	89		-		70-130	-		
Dichlorodifluoromethane	91		-		70-130	-		
Chloromethane	87		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	88		-		70-130	-		
Vinyl chloride	87		-		70-130	-		
1,3-Butadiene	93		-		70-130	-		
Bromomethane	85		-		70-130	-		
Chloroethane	82		-		70-130	-		
Ethyl Alcohol	106		-		70-130	-		
Vinyl bromide	79		-		70-130	-		
Acetone	94		-		50-150	-		
Trichlorofluoromethane	85		-		70-130	-		
iso-Propyl Alcohol	90		-		70-130	-		
1,1-Dichloroethene	88		-		70-130	-		
tert-Butyl Alcohol <sup>1</sup>	86		-		70-130	-		
Methylene chloride	94		-		70-130	-		
3-Chloropropene	103		-		70-130	-		
Carbon disulfide	83		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	86		-		70-130	-		
trans-1,2-Dichloroethene	85		-		70-130	-		
1,1-Dichloroethane	87		-		70-130	-		
Methyl tert butyl ether	90		-		70-130	-		
Vinyl acetate	103		-		70-130	-		

# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1830289

arameter	LCS %Recovery Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits
CP Volatile Organics in Air by SIM - M	ansfield Lab Associated samp	ole(s): 01-07 Batch:	WG1145966-3			
2-Butanone	94	-	70-130	-		
cis-1,2-Dichloroethene	87	-	70-130	-		
Ethyl Acetate	92	-	70-130	-		
Chloroform	89	-	70-130	-		
Tetrahydrofuran	86	-	70-130	-		
1,2-Dichloroethane	89	-	70-130	-		
n-Hexane	99	-	70-130	-		
1,1,1-Trichloroethane	98	-	70-130	-		
Benzene	92	-	70-130	-		
Carbon tetrachloride	98	-	70-130	-		
Cyclohexane	99	-	70-130	-		
Dibromomethane <sup>1</sup>	80	-	70-130	-		
1,2-Dichloropropane	94	-	70-130	-		
Bromodichloromethane	97	-	70-130	-		
1,4-Dioxane	100	-	50-150	-		
Trichloroethene	91	-	70-130	-		
2,2,4-Trimethylpentane	108	-	70-130	-		
cis-1,3-Dichloropropene	98	-	70-130	-		
4-Methyl-2-pentanone	108	-	70-130	-		
trans-1,3-Dichloropropene	86	-	70-130	-		
1,1,2-Trichloroethane	94	-	70-130	-		
Toluene	90	-	70-130	-		
2-Hexanone	100	-	70-130	-		



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1830289

arameter	LCS %Recovery		.CSD ecovery	%Recover Qual Limits	y RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM -	Mansfield Lab Associa	ated sample(s): 01-	07 Batch:	WG1145966-3			
Dibromochloromethane	98		-	70-130	-		
1,2-Dibromoethane	90		-	70-130	-		
Tetrachloroethene	88		-	70-130	-		
Chlorobenzene	91		-	70-130	-		
Ethylbenzene	93		-	70-130	-		
p/m-Xylene	96		-	70-130	-		
Bromoform	97		-	70-130	-		
Styrene	95		-	70-130	-		
1,1,2,2-Tetrachloroethane	97		-	70-130	-		
o-Xylene	99		-	70-130	-		
1,2,3-Trichloropropane <sup>1</sup>	90		-	70-130	-		
Bromobenzene <sup>1</sup>	91		-	70-130	-		
1,3,5-Trimethylbenzene	101		-	70-130	-		
1,2,4-Trimethylbenzene	108		-	70-130	-		
Benzyl chloride	100		-	70-130	-		
1,3-Dichlorobenzene	102		-	70-130	-		
1,4-Dichlorobenzene	102		-	70-130	-		
1,2-Dichlorobenzene	105		-	70-130	-		
1,2,4-Trichlorobenzene	104		-	50-150	-		
Naphthalene	99		-	50-150	-		
1,2,3-Trichlorobenzene	101		-	70-130	-		
Hexachlorobutadiene	121		-	50-150	-		



BAW - WEYMOUTH FORE RIVER L1830289

Project Number: 101869.00 Report Date: 08/15/18

### **Canister and Flow Controller Information**

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Pressure (in. Hg)			Flow Out mL/min	Flow In mL/min	
L1830289-01	Q1-073118-1	0984	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.0	10
L1830289-01	Q1-073118-1	2323	6.0L Can	07/30/18	269579	L1828528-02	Pass	-29.6	-11.6	-	-	-	-
L1830289-02	Q1-073118-2	0542	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.5	6
L1830289-02	Q1-073118-2	956	6.0L Can	07/30/18	269579	L1828016-03	Pass	-29.6	-5.0	-	-	-	-
L1830289-03	B1-073118	0500	Flow 5	07/30/18	269579		-	-	-	Pass	3.2	3.7	14
L1830289-03	B1-073118	691	6.0L Can	07/30/18	269579	L1828528-01	Pass	-29.5	-6.2	-	-	-	-
L1830289-04	W1-073118	0330	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.6	9
L1830289-04	W1-073118	1872	6.0L Can	07/30/18	269579	L1828016-01	Pass	-29.5	-4.7	-	-	-	-
L1830289-05	H1-073118	0059	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.7	11
L1830289-05	H1-073118	603	6.0L Can	07/30/18	269579	L1828288-03	Pass	-29.6	-4.0	-	-	-	-
L1830289-06	W2-073118	0483	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.5	6
L1830289-06	W2-073118	2049	6.0L Can	07/30/18	269579	L1828016-02	Pass	-29.6	-5.1	-	-	-	-
L1830289-07	BLANK 073118	0237	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.3	0
L1830289-07	BLANK 073118	2052	6.0L Can	07/30/18	269579	L1828288-01	Pass	-29.6	-29.6	-	-	-	-



Project Name:

Field Prep:

L1828016

Not Specified

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

### **Air Canister Certification Results**

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 CAN 1872 SHELF 51 Client ID: Date Received: 07/20/18

Sample Location:

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/21/18 15:39

Analyst: GJ

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1828016

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
	70 HOOD TOLY	- Lucinion	
1,4-Difluorobenzene	99		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	100		60-140



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/21/18 15:39

Analyst: GJ

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	ND         0.200           ND         0.200           ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         1.00           ND         0.500           ND         0.500           ND         0.500           ND         0.050           ND         0.050           ND         0.020           ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.500          ND         0.020            ND         0.050          ND         0.020            ND         0.020          ND         0.020	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1828016

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Campic Deptin.								
• •		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	99		60-140



Field Prep:

L1828016

Not Specified

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location:

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/21/18 16:12

Analyst: GJ

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828016

Not Specified

Lab Number:

Field Prep:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location:

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1828016

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: **CAN 2049 SHELF 52** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/21/18 16:12

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1828016

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/21/18 16:44

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1828016

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

**Air Canister Certification Results** 

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: CAN 956 SHELF 53 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	89		60-140



L1828016

07/20/18 10:00

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-03

Date Collected: Client ID: **CAN 956 SHELF 53** Date Received:

07/20/18 Field Prep: Not Specified

Sample Depth:

Sample Location:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/21/18 16:44

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828016

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Заттріе Беріті.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1828016

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828016-03

Client ID: **CAN 956 SHELF 53** 

Sample Location:

Date Collected:

07/20/18 10:00

Date Received: 07/20/18 Field Prep:

Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	89		60-140



L1828288

Not Specified

Lab Number:

Field Prep:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: **CAN 2052 SHELF 44** Date Received: 07/24/18

Sample Location:

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/24/18 09:11

Analyst: MB

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828288

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: CAN 2052 SHELF 44 Date Received: 07/24/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828288

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: CAN 2052 SHELF 44 Date Received: 07/24/18

Sample Location: Field Prep: Not Specified

Запре Верш.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828288

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: CAN 2052 SHELF 44 Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name: BATCH CANISTER CERTIFICATION** 

Lab Number: L1828288

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

**Air Canister Certification Results** 

Lab ID: L1828288-01

Client ID: **CAN 2052 SHELF 44** 

Date Received:

07/23/18 16:00

Date Collected:

07/24/18

Field Prep:

Not Specified

Sample Depth:

Sample Location:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	83		60-140



L1828288

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: **CAN 2052 SHELF 44** Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/24/18 09:11

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	ND         0.200           ND         0.200           ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         1.00           ND         0.500           ND         0.500           ND         0.500           ND         0.050           ND         0.050           ND         0.020           ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.500          ND         0.020            ND         0.050          ND         0.020            ND         0.020          ND         0.020	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1828288

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: CAN 2052 SHELF 44 Date Received: 07/24/18

Sample Location:

Field Prep:

Заттріе Беріті.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1828288

Project Number: CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-01

Client ID: CAN 2052 SHELF 44

Date Received: 07/24/18

Date Collected:

Field Prep: Not Specified

07/23/18 16:00

Sample Depth:

Sample Location:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - I	Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	82		60-140



**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT

L1828288

Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-03

Client ID: CAN 603 SHELF 54

Sample Location:

Date Collected:

Lab Number:

07/23/18 16:00

Date Received:

07/24/18

Field Prep:

Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15 Analytical Date:

07/24/18 10:16

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828288

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-03

Date Collected: 07/23/18 16:00 Client ID: **CAN 603 SHELF 54** Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828288

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-03

Date Collected: 07/23/18 16:00 Client ID: **CAN 603 SHELF 54** Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828288

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-03

Date Collected: 07/23/18 16:00 Client ID: CAN 603 SHELF 54 Date Received: 07/24/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbV		ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number:

Project Number: CANISTER QC BAT Report Date: 08/15/18

**Air Canister Certification Results** 

Lab ID: L1828288-03

Client ID: CAN 603 SHELF 54

Sample Location:

Date Collected:

07/23/18 16:00

Date Received:

07/24/18

L1828288

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Results Qualifier Units RDL Dilution

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	90		60-140



L1828288

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-03

Date Collected: 07/23/18 16:00 Client ID: CAN 603 SHELF 54 Date Received: 07/24/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/24/18 10:16

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828288

07/23/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-03

Client ID: CAN 603 SHELF 54 Date Received: 07/24/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mans	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1828288

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828288-03

Client ID: **CAN 603 SHELF 54** 

Sample Location:

Date Collected: 07/23/18 16:00 Date Received: 07/24/18

Field Prep: Not Specified

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mar	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140



L1828528

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 07/25/18 09:55 Analytical Date:

Analyst: RY

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828528

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828528

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

Затріе Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828528

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1828528

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	77		60-140



L1828528

07/24/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-01

Client ID: CAN 691 SHELF 53

Sample Location: Field

Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 48,TO-15-SIM Analytical Date: 07/25/18 09:55

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828528

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1828528

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - I	Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	82		60-140



Project Name: BATCH CANISTER CERTIFICATION

Lab Number:

L1828528

Project Number: CANISTER QC BAT

**Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-02

Client ID: CAN 2323 SHLEF 46

Sample Location:

Date Collected: 07/24/18 16:00 Date Received: 07/25/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/25/18 10:28

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND 1.09 -				1
Pentane	ND	0.200		ND 0.590				1
Ethyl ether	ND	0.200		ND 0.606			1	
1,1-Dichloroethene	ND	0.200		ND 0.793				1



L1828528

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	ND 1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND 0.836				1
Dibromomethane	ND	0.200		ND	ND 1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828528

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location: Field Prep:

Sample Depth:		ppbV			ug/m3		Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
Volatile Organics in Air - Mansf	ield Lab								
Bromodichloromethane	ND	0.200		ND 1.34				1	
1,4-Dioxane	ND	0.200		ND	0.721			1	
Trichloroethene	ND	0.200		ND 1.07				1	
2,2,4-Trimethylpentane	ND	0.200		ND 0.934			1		
Methyl Methacrylate	ND	0.500		ND	2.05			1	
Heptane	ND	0.200		ND	0.820			1	
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1	
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1	
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1	
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1	
Toluene	ND	0.200		ND	0.754			1	
1,3-Dichloropropane	ND	0.200		ND	0.924			1	
2-Hexanone	ND	0.200		ND	0.820			1	
Dibromochloromethane	ND	0.200		ND	1.70			1	
1,2-Dibromoethane	ND	0.200		ND	1.54			1	
Butyl acetate	ND	0.500		ND	2.38			1	
Octane	ND	0.200		ND	0.934			1	
Tetrachloroethene	ND	0.200		ND	1.36			1	
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1	
Chlorobenzene	ND	0.200		ND	0.921			1	
Ethylbenzene	ND	0.200		ND	0.869			1	
o/m-Xylene	ND	0.400		ND	1.74			1	
Bromoform	ND	0.200		ND	2.07			1	
Styrene	ND	0.200		ND	0.852			1	
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1	
o-Xylene	ND	0.200		ND	0.869			1	
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1	



L1828528

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND 1.05				1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND 0.793				1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION La

Lab Number: L1828528

Project Number: CANISTER QC BAT Report Date: 08/15/18

**Air Canister Certification Results** 

Lab ID: L1828528-02

Client ID: CAN 2323 SHLEF 46

Sample Location:

Date Collected:

07/24/18 16:00

Date Received:

07/25/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	82		60-140



L1828528

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: **CAN 2323 SHLEF 46** Date Received: 07/25/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/25/18 10:28

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050 ND 0.349 -				1		
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828528

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location: Field Prep:

Not Specified

Запріє Беріп.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1828528

**Project Number:** CANISTER QC BAT **Report Date:** 08/15/18

# **Air Canister Certification Results**

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mar	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	87		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1830289

**Project Number:** 101869.00 **Report Date:** 08/15/18

# Sample Receipt and Container Information

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal

N/A Absent

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рH	рН	deg C P	res	Seal	Date/Time	Analysis(*)
L1830289-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1830289-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1830289-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1830289-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1830289-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1830289-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1830289-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)



**Project Name:** Lab Number: BAW - WEYMOUTH FORE RIVER L1830289 **Project Number:** 101869.00 **Report Date:** 08/15/18

### GLOSSARY

## Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

**EMPC** - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case

estimate of the concentration.

**EPA** - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for

which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

**RPD** - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the

precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEO - Toxic Equivalent: The measure of a sample is toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

#### **Footnotes**

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1830289Project Number:101869.00Report Date:08/15/18

#### Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations
  of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- $\label{eq:MCPCAM} \textbf{M} \qquad \text{-Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.}$
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- **ND** Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1830289Project Number:101869.00Report Date:08/15/18

## REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

## **LIMITATION OF LIABILITIES**

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:17873

Revision 11

Page 1 of 1

Published Date: 1/8/2018 4:15:49 PM

## Certification Information

## The following analytes are not included in our Primary NELAP Scope of Accreditation:

## Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: DW: Bromide EPA 6860: SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

## **Mansfield Facility**

**SM 2540D: TSS** 

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

#### The following analytes are included in our Massachusetts DEP Scope of Accreditation

#### Westborough Facility:

#### **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

#### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-B, E, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM450P-B, EPA 351.1, SM4500P-B, EPA 351.1, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D. EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.

## **Mansfield Facility:**

## **Drinking Water**

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

## Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

4		NALYSIS	Р	AGEOF	Date F	Rec'd in L	ab: 8-	3-18	3	ALPHA Jo	ob#:L1830289
ANALYTICA	CHAIN OF CUSTODY	Project Informat	ion		Repo	rt Inforn	nation -	Data Deliveral	bles	Billing Info	ormation
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*SAMPL	E MATRIX CODES S	A = Ambient Air (Indoor V = Soil Vapor/Landfill ( ther = Please Specify					Container	Туре			Please print clearly, legibly and completely. Samples can not be logged in and turnaround time
Page 96 of 97	8-345 5-Sep-15)	Relinquished By:	C	8-3-18 9 9-3-14 19:	30 J Q	Rece	eived By:	( 8.3 tr 8	Da -3-18	te/Time: 0 / 5 3 5 7 7 8 30 1953	clock will not start until any ambi- guities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

	-		Fore River Study	Field Form 6/2018				
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nstall Date:	73118							
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	0 1 15					1		
Site ID	Canister Id	Regulator ID	Start Time (DST)		Collect Time (DST)	End Vacuum	Comments/Observations	1
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## ANALYTICAL REPORT

Lab Number: L1831651

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 08/20/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

**Lab Number:** L1831651

**Report Date:** 08/20/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1831651-01	Q1-080618-1	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 11:07	08/10/18
L1831651-02	Q1-080618-2	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 11:09	08/10/18
L1831651-03	B1-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 11:37	08/10/18
L1831651-04	W1-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 11:54	08/10/18
L1831651-05	H1-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 12:37	08/10/18
L1831651-06	W2-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 12:53	08/10/18
L1831651-07	B-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 00:00	08/10/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

**Project Number:** 101869.00 **Report Date:** 08/20/18

## **MADEP MCP Response Action Analytical Report Certification**

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
Α	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A res	sponse to questions G, H and I is required for "Presumptive Certainty" status	
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
ı	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:08/20/18

## **Case Narrative**

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.



Serial\_No:08201816:24

Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:08/20/18

## **Case Narrative (continued)**

MCP Related Narratives

Canisters were released from the laboratory on August 3, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 08/20/18

ALPHA

# **AIR**



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1831651

**Report Date:** 08/20/18

## **SAMPLE RESULTS**

Lab ID: L1831651-01

Client ID: Q1-080618-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:07

Date Received: 08/10/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 20:29

Analyst: RY

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	5.50	1.00		13.1	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.027	0.020		0.132	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	0.107	0.100		0.342	0.319			1
Carbon tetrachloride	0.069	0.020		0.434	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1831651

**Report Date:** 08/20/18

# SAMPLE RESULTS

Lab ID: L1831651-01 Client ID: Q1-080618-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:07

Date Received: 08/10/18
Field Prep: Not Specified

campio Bopan.	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.210	0.050		0.791	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.050	0.020		0.217	0.087			1
p/m-Xylene	0.141	0.040		0.612	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.052	0.020		0.226	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier Units	RDL	Dilution Factor
Tentatively Identified Compounds				
Unknown	2.86	ppbV		1
Unknown	2.01	ppbV		1
Unknown	1.28	ppbV		1
Propane	1.35	ppbV		1
Acetaldehyde	3.12	ppbV		1



L1831651

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date:

101869.00 08/20/18

SAMPLE RESULTS

Lab ID: L1831651-01 Date Collected: 08/07/18 11:07

Client ID: Q1-080618-1 Date Received: 08/10/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RL Qualifier Results MDL **Parameter** RL Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	17.6		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1831651

**Report Date:** 08/20/18

## **SAMPLE RESULTS**

Lab ID: L1831651-02

Client ID: Q1-080618-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:09 Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 21:04

Analyst: RY

	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	5.47	1.00		13.0	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.027	0.020		0.132	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	0.108	0.100		0.345	0.319			1
Carbon tetrachloride	0.070	0.020		0.440	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

08/20/18

### **SAMPLE RESULTS**

Lab ID: L1831651-02 Client ID: Q1-080618-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:09

Date Received: 08/10/18
Field Prep: Not Specified

ppbV				ug/m3		Dilution	
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
M - Mansfield	Lab						
0.211	0.050		0.795	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
0.043	0.020		0.187	0.087			1
0.112	0.040		0.486	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
0.041	0.020		0.178	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	M - Mansfield  0.211  ND  ND  ND  ND  0.043  0.112  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results         RL           M - Mansfield Lab           0.211         0.050           ND         0.020           ND         0.020           ND         0.100           0.043         0.020           ND         0.050           ND         0.050	Results         RL         MDL           M - Mansfield Lab            ND         0.050            ND         0.020            ND         0.020            ND         0.100            0.043         0.020            ND         0.050            ND         0.050	Results         RL         MDL         Results           M - Mansfield Lab         0.211         0.050          0.795           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           0.043         0.020          ND           0.112         0.040          0.486           ND         0.020          ND           ND         0.050          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           M - Mansfield Lab         0.211         0.050          0.795         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           0.043         0.020          ND         0.486           0.112         0.040          0.486         0.174           ND         0.020          ND         0.085           ND         0.020          ND         0.137           0.041         0.020          ND         0.120           ND         0.050          ND         0.371 </td <td>Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         0.211         0.050          0.795         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.043         0.020          ND         0.486         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND</td> <td>Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab           0.211         0.050          0.795         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.043         0.020          ND         0.486         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         <td< td=""></td<></td>	Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         0.211         0.050          0.795         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.043         0.020          ND         0.486         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND	Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab           0.211         0.050          0.795         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            0.043         0.020          ND         0.486         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND <td< td=""></td<>

	Results	Qualifier Units	RDL	Dilution Factor
Tentatively Identified Compounds				
Unknown Hydrocarbon	1.12	ppbV	1	1
Acetaldehyde	1.50	ppbV	,	1
Acetophenone	1.26	ppbV	,	1
Methyl Alcohol	13.8	ppbV	1	1
Silanol, Trimethyl-	2.90	ppbV	1	1



Project Number: 101869.00 Lab Number:

L1831651

Report Date:

08/20/18

## SAMPLE RESULTS

Lab ID: L1831651-02

Client ID: Q1-080618-2

Sample Location:

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/07/18 11:09

Date Received:

08/10/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** Results ppbV ug/m3 Results RL MDL

RL Qualifier MDL

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Ethyl Alcohol	1.24		ppbV		1
1,3-Butadiene, 2-methyl-	1.15		ppbV		1
Cyclotrisiloxane, Hexamethyl-	3.17		ppbV		1
Propane	1.32		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	86		60-140



Project Number: 101869.00 Lab Number:

L1831651

Report Date: 08/20/18

### SAMPLE RESULTS

Lab ID: L1831651-03 Client ID: B1-080618

Date Collected: 08/07/18 11:37

08/10/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Received: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 22:14

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	5.94	1.00		14.1	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.029	0.020		0.142	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	0.020	0.020		0.109	0.109			1
Benzene	0.111	0.100		0.355	0.319			1
Carbon tetrachloride	0.071	0.020		0.447	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1831651

**Report Date:** 08/20/18

### **SAMPLE RESULTS**

Lab ID: L1831651-03 Client ID: B1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:37

Date Received: 08/10/18
Field Prep: Not Specified

ppbV ug/m3							
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
l - Mansfield	Lab						
0.292	0.050		1.10	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
0.039	0.020		0.264	0.136			1
ND	0.100		ND	0.461			1
0.049	0.020		0.213	0.087			1
0.154	0.040		0.669	0.174			1
ND	0.020		ND	0.207			1
0.032	0.020		0.136	0.085			1
ND	0.020		ND	0.137			1
0.059	0.020		0.256	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	0.292 ND ND 0.039 ND 0.049 0.154 ND 0.032 ND 0.059 ND ND ND ND	Results         RL           I - Mansfield Lab           0.292         0.050           ND         0.020           ND         0.020           ND         0.100           0.049         0.020           ND         0.050           ND         0.050           ND         0.050	Results         RL         MDL           I - Mansfield Lab         0.292         0.050            ND         0.020            ND         0.020            0.039         0.020            ND         0.100            0.049         0.020            ND         0.050            ND         0.050            ND         0.050	Results         RL         MDL         Results           I - Mansfield Lab         0.292         0.050          1.10           ND         0.020          ND           ND         0.020          ND           0.039         0.020          ND           0.039         0.020          ND           0.049         0.020          ND           0.049         0.020          ND           0.154         0.040          0.669           ND         0.020          ND           0.032         0.020          ND           0.059         0.020          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           I - Mansfield Lab         0.292         0.050          1.10         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           0.039         0.020          ND         0.461           ND         0.100          ND         0.461           0.049         0.020          ND         0.374           ND         0.040          0.669         0.174           ND         0.020          ND         0.207           0.032         0.020          ND         0.137           0.059         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.050          ND         0.371	Results         RL         MDL         Results         RL         MDL           I - Mansfield Lab         0.292         0.050          1.10         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            0.039         0.020          ND         0.461            ND         0.100          ND         0.461            0.049         0.020          0.213         0.087            0.154         0.040          0.669         0.174            ND         0.020          ND         0.207            0.032         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND	Results         RL         MDL         Results         RL         MDL         Qualifier           I - Mansfield Lab           0.292         0.050          1.10         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            0.039         0.020          0.264         0.136            ND         0.100          ND         0.461            0.049         0.020          0.213         0.087            0.154         0.040          0.669         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.137            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Benzeneethanamine, N-((pent	2.12		ppbV		1
Ethyl Alcohol	1.46		ppbV		1
1,2-Pentadiene	1.86		ppbV		1
Acetophenone	1.62		ppbV		1
Unknown	27.8		ppbV		1



101869.00

Lab Number:

L1831651

Report Date:

08/20/18

## SAMPLE RESULTS

MDL

Lab ID:

L1831651-03

Client ID:

Sample Location:

Project Number:

B1-080618

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/07/18 11:37

Date Received:

08/10/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** Results ppbV RL

ug/m3 RL Results

Qualifier MDL

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
unknown aldehyde	4.58		ppbV		1
Silanol, Trimethyl-	90.4		ppbV		1
Unknown	12.4		ppbV		1
Methyl Alcohol	24.9		ppbV		1
Cyclotrisiloxane, Hexamethyl-	86.0		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	88		60-140



Project Number: 101869.00

Lab Number:

L1831651

**Report Date:** 08/20/18

### **SAMPLE RESULTS**

Lab ID: L1831651-04

Client ID: W1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:54 Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 22:49

Analyst: RY

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	6.50	1.00		15.4	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.028	0.020		0.137	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	0.151	0.100		0.482	0.319			1
Carbon tetrachloride	0.074	0.020		0.465	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

08/20/18

## **SAMPLE RESULTS**

Lab ID: L1831651-04 Client ID: W1-080618

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/

08/07/18 11:54

Date Received: Field Prep:

08/10/18 Not Specified

Sample Depth:

Sample Location:

оатріс Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Toluene	0.354	0.050		1.33	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.065	0.020		0.282	0.087			1
o/m-Xylene	0.210	0.040		0.912	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.075	0.020		0.326	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Propane	1.12		ppbV		1
Silanol, Trimethyl-	1.29		ppbV		1
Methyl Alcohol	14.1		ppbV		1
1,2-Pentadiene	1.69		ppbV		1
Ethyl Alcohol	1.47		ppbV		1



101869.00

Lab Number: Report Date:

L1831651

08/20/18

SAMPLE RESULTS

MDL

Lab ID:

L1831651-04

Date Collected:

MDL

08/07/18 11:54

Client ID:

W1-080618

Date Received:

08/10/18

Sample Location:

Project Number:

QUINCY WEYMOUTH BRAINTREE

Field Prep:

Not Specified

Sample Depth:

Parameter Results

ug/m3
Results RL

Qualifier

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	2.14		ppbV		1
Unknown Hydrocarbon	1.44		ppbV		1
Pentane	1.24		ppbV		1
Acetaldehyde	1.89		ppbV		1
Butane	1.11		ppbV		1

ppbV

RL

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	79		60-140



Project Number: 101869.00

Lab Number: L1831651

**Report Date:** 08/20/18

### **SAMPLE RESULTS**

Lab ID: L1831651-05

Client ID: H1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08

08/07/18 12:37

Date Received: Field Prep:

08/10/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 23:24

Analyst: RY

	ppbV			ug/m3			Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
M - Mansfield	Lab						
ND	0.020		ND	0.051			1
ND	0.020		ND	0.078			1
6.01	1.00		14.3	2.38			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
0.029	0.020		0.142	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
0.072	0.020		0.453	0.126			1
ND	0.020		ND	0.092			1
ND	0.020		ND	0.134			1
ND	0.100		ND	0.360			1
ND	0.020		ND	0.107			1
ND	0.020		ND	0.091			1
ND	0.500		ND	2.05			1
ND	0.020		ND	0.091			1
ND	0.020		ND	0.109			1
	M - Mansfield  ND  ND  6.01  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results   RL     M - Mansfield Lab     ND	Results         RL         MDL           M - Mansfield Lab         ND         0.020            ND         0.020             6.01         1.00             ND         0.020             ND         0.500             ND         0.020             ND         0.500             ND         0.020             ND         0.020        <	Results         RL         MDL         Results           M - Mansfield Lab         ND         0.020          ND           ND         0.020          ND         ND           6.01         1.00          ND         ND           ND         0.020          ND </td <td>Results         RL         MDL         Results         RL           M - Mansfield Lab         ND         0.020          ND         0.051           ND         0.020          ND         0.078           6.01         1.00          ND         0.078           6.01         1.00          ND         0.079           ND         0.020          ND         0.079           ND         0.500          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND         0.020          ND         0.072           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.081           ND         0.020          ND         0.0109<!--</td--><td>Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         ND         0.020          ND         0.051            ND         0.020          ND         0.078            6.01         1.00          ND         0.079            ND         0.020          ND         0.079            ND         0.500          ND         0.079            ND         0.020          ND         0.079            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.081            ND         0.020          ND         0.072            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.081</td><td>Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab         ND         0.020          ND         0.051             ND         0.020          ND         0.078             6.01         1.00          ND         0.079             ND         0.020          ND         0.079             ND         0.500          ND         0.079             ND         0.020          ND         0.079             ND         0.020          ND         0.081             ND         0.020          ND         0.071             ND         0.020          ND         0.072             ND         0.020          ND         0.041             ND         0.020          ND         0.045         </td></td>	Results         RL         MDL         Results         RL           M - Mansfield Lab         ND         0.020          ND         0.051           ND         0.020          ND         0.078           6.01         1.00          ND         0.078           6.01         1.00          ND         0.079           ND         0.020          ND         0.079           ND         0.500          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND         0.020          ND         0.072           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.079           ND         0.020          ND         0.081           ND         0.020          ND         0.0109 </td <td>Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         ND         0.020          ND         0.051            ND         0.020          ND         0.078            6.01         1.00          ND         0.079            ND         0.020          ND         0.079            ND         0.500          ND         0.079            ND         0.020          ND         0.079            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.081            ND         0.020          ND         0.072            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.081</td> <td>Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab         ND         0.020          ND         0.051             ND         0.020          ND         0.078             6.01         1.00          ND         0.079             ND         0.020          ND         0.079             ND         0.500          ND         0.079             ND         0.020          ND         0.079             ND         0.020          ND         0.081             ND         0.020          ND         0.071             ND         0.020          ND         0.072             ND         0.020          ND         0.041             ND         0.020          ND         0.045         </td>	Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         ND         0.020          ND         0.051            ND         0.020          ND         0.078            6.01         1.00          ND         0.079            ND         0.020          ND         0.079            ND         0.500          ND         0.079            ND         0.020          ND         0.079            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.081            ND         0.020          ND         0.072            ND         0.020          ND         0.079            ND         0.020          ND         0.081            ND         0.020          ND         0.081	Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab         ND         0.020          ND         0.051             ND         0.020          ND         0.078             6.01         1.00          ND         0.079             ND         0.020          ND         0.079             ND         0.500          ND         0.079             ND         0.020          ND         0.079             ND         0.020          ND         0.081             ND         0.020          ND         0.071             ND         0.020          ND         0.072             ND         0.020          ND         0.041             ND         0.020          ND         0.045



Project Number: 101869.00

Lab Number:

L1831651

**Report Date:** 08/20/18

### **SAMPLE RESULTS**

Lab ID: L1831651-05 Client ID: H1-080618

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/07/18 12:37

Date Received: Field Prep:

08/10/18 Not Specified

Sample Depth:

Sample Location:

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.143	0.050		0.539	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	0.044	0.020		0.298	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.020	0.020		0.087	0.087			1
p/m-Xylene	0.051	0.040		0.222	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.020	0.020		0.087	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier Units	RDL	Dilution Factor
Tentatively Identified Compounds				
Unknown	1.68	ppbV		1
Acetaldehyde	2.44	ppbV		1
Silanol, Trimethyl-	3.20	ppbV		1
Unknown	1.00	ppbV		1
Ethyl Alcohol	1.87	ppbV		1



Project Number: 101869.00 Lab Number:

L1831651

Report Date:

08/20/18

## SAMPLE RESULTS

MDL

Lab ID: L1831651-05 Client ID:

H1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Collected:

08/07/18 12:37

Date Received:

08/10/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** Results

ug/m3 RL Results

Qualifier MDL

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.60		ppbV		1
Propane	1.25		ppbV		1
1,3-Butadiene, 2-methyl-	1.81		ppbV		1
Methyl Alcohol	11.0		ppbV		1

ppbV

RL

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	84		60-140



Project Number: 101869.00

Lab Number:

L1831651

**Report Date:** 08/20/18

### **SAMPLE RESULTS**

Lab ID: L1831651-06

Client ID: W2-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 12:53 Date Received: 08/10/18

Date Received: 08/10/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/17/18 00:00

Analyst: RY

		ppbV		-	ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	6.35	1.00		15.1	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.026	0.020		0.127	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	0.102	0.100		0.326	0.319			1
Carbon tetrachloride	0.069	0.020		0.434	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

08/20/18

## **SAMPLE RESULTS**

Lab ID: L1831651-06 Client ID: W2-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 0

08/07/18 12:53

Date Received: Field Prep:

08/10/18 Not Specified

PI		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	1 - Mansfield	Lab						
Toluene	0.207	0.050		0.780	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.036	0.020		0.156	0.087			1
p/m-Xylene	0.104	0.040		0.452	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	0.039	0.020		0.169	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Acetaldehyde	2.17		ppbV		1
Propane	1.29		ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.22		ppbV		1
Unknown Hydrocarbon	1.26		ppbV		1
Methyl Alcohol	10.4		ppbV		1



Project Number: 101869.00 Lab Number:

L1831651

Report Date: 08/20/18

SAMPLE RESULTS

MDL

Lab ID:

L1831651-06

Client ID:

Sample Location:

W2-080618

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/07/18 12:53

Date Received:

08/10/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** Results ppbV RL

ug/m3 RL Results

Qualifier MDL

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	2.94		ppbV		1
Cyclopropane, ethylidene-	1.14		ppbV		1
Ethyl Alcohol	1.44		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	85		60-140



Project Number: 101869.00

Lab Number:

L1831651

**Report Date:** 08/20/18

### SAMPLE RESULTS

Lab ID: L1831651-07

Client ID: B-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 00:00 Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/17/18 10:22

Analyst: RY

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	ND	1.00		ND	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

08/20/18

### **SAMPLE RESULTS**

Lab ID: L1831651-07 Client ID: B-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 00:00

Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Parameter         Results         RL         MDL         Results         RL         MDL         Qualifier           MCP Volatile Organics in Air by SIM - Mansfield Lab           Toluene         ND         0.050          ND         0.188             Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            1,2-Dibromoethane         ND         0.020          ND         0.154            1,2-Dibromoethane         ND         0.020          ND         0.136            1,2-Dibromoethane         ND         0.020          ND         0.136            1,2-Dibromoethane         ND         0.020          ND         0.087            Ethylbeachene         ND         0.020          ND         0.087            Ethylbenzene         ND         0.020          ND         0.020            Styrene         ND         0.020          ND <t< th=""><th>1 1 1</th></t<>	1 1 1
Toluene         ND         0.050          ND         0.188            Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethane         ND         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.085            Styrene         ND         0.020          ND         0.137            0-Xylene         ND         0.020          ND         0.087	1
Dibromochloromethane         ND         0.020          ND         0.170            1,2-Dibromoethane         ND         0.020          ND         0.154            Tetrachloroethane         ND         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.087            Styrene         ND         0.020          ND         0.137            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            o-Xylene         ND         0.020          ND         0.087	1
1,2-Dibromoethane       ND       0.020        ND       0.154          Tetrachloroethene       ND       0.020        ND       0.136          Chlorobenzene       ND       0.100        ND       0.461          Ethylbenzene       ND       0.020        ND       0.087          p/m-Xylene       ND       0.040        ND       0.174          Bromoform       ND       0.020        ND       0.207          Styrene       ND       0.020        ND       0.085          1,1,2,2-Tetrachloroethane       ND       0.020        ND       0.087          o-Xylene       ND       0.020        ND       0.087	-
Tetrachloroethene         ND         0.020          ND         0.136            Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
Chlorobenzene         ND         0.100          ND         0.461            Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            o-Xylene         ND         0.020          ND         0.087	
Ethylbenzene         ND         0.020          ND         0.087            p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.087            o-Xylene         ND         0.020          ND         0.087	1
p/m-Xylene         ND         0.040          ND         0.174            Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
Bromoform         ND         0.020          ND         0.207            Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
Styrene         ND         0.020          ND         0.085            1,1,2,2-Tetrachloroethane         ND         0.020          ND         0.137            o-Xylene         ND         0.020          ND         0.087	1
1,1,2,2-Tetrachloroethane       ND       0.020        ND       0.137          o-Xylene       ND       0.020        ND       0.087	1
o-Xylene ND 0.020 ND 0.087	1
	1
1,3-Dichlorobenzene ND 0.020 ND 0.120	1
	1
1,4-Dichlorobenzene ND 0.020 ND 0.120	1
1,2-Dichlorobenzene ND 0.020 ND 0.120	1
1,2,4-Trichlorobenzene ND 0.050 ND 0.371	1
Naphthalene ND 0.050 ND 0.262	1
Hexachlorobutadiene ND 0.050 ND 0.533	1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

08/20/18

SAMPLE RESULTS

Lab ID: L1831651-07

Client ID: B-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/07/18 00:00

Date Received:

08/10/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results

ppbV RL ug/m3
Results RL

MDL Qualifier

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

MDL

Units

RDL

Dilution Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

**Project Number:** 101869.00 **Report Date:** 08/20/18

# Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 19:18

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	147478	-4	
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

**Project Number:** 101869.00 **Report Date:** 08/20/18

# Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 19:18

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL MC		MDL Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	147478	-4	
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

**Project Number:** 101869.00 **Report Date:** 08/20/18

# Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 19:18

		ppbV				Qualifier	Dilution	
Parameter	Results	RL	MDL	Results	RL MDL		Factor	
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batch:	WG1	147478-4	1	
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1831651

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits	
MCP Volatile Organics in Air by SIM -	Mansfield Lab Associ	ated sample(s):	: 01-07	Batch:	WG1147	478-3				
Propylene	87		-			70-130	-			
Dichlorodifluoromethane	92		-			70-130	-			
Chloromethane	86		-			70-130	-			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	93		-			70-130	-			
Vinyl chloride	89		-			70-130	-			
1,3-Butadiene	92		-			70-130	-			
Bromomethane	91		-			70-130	-			
Chloroethane	84		-			70-130	-			
Ethyl Alcohol	104		-			70-130	-			
Vinyl bromide	85		-			70-130	-			
Acetone	96		-			50-150	-			
Trichlorofluoromethane	90		-			70-130	-			
iso-Propyl Alcohol	90		-			70-130	-			
1,1-Dichloroethene	88		-			70-130	-			
tert-Butyl Alcohol <sup>1</sup>	86		-			70-130	-			
Methylene chloride	95		-			70-130	-			
3-Chloropropene	98		-			70-130	-			
Carbon disulfide	87		-			70-130	-			
1,1,2-Trichloro-1,2,2-Trifluoroethane	93		-			70-130	-			
trans-1,2-Dichloroethene	86		-			70-130	-			
1,1-Dichloroethane	90		-			70-130	-			
Methyl tert butyl ether	91		-			70-130	-			
Vinyl acetate	97		-			70-130	-			

# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1831651

Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits	
MCP Volatile Organics in Air by SIM	- Mansfield Lab Associ	ated sample(s):	01-07	Batch:	WG11474	478-3				
2-Butanone	92		-			70-130	-			
cis-1,2-Dichloroethene	89		-			70-130	-			
Ethyl Acetate	93		-			70-130	-			
Chloroform	95		-			70-130	-			
Tetrahydrofuran	91		-			70-130	-			
1,2-Dichloroethane	91		-			70-130	-			
n-Hexane	91		-			70-130	-			
1,1,1-Trichloroethane	95		-			70-130	-			
Benzene	88		-			70-130	-			
Carbon tetrachloride	97		-			70-130	-			
Cyclohexane	91		-			70-130	-			
Dibromomethane <sup>1</sup>	79		-			70-130	-			
1,2-Dichloropropane	89		-			70-130	-			
Bromodichloromethane	96		-			70-130	-			
1,4-Dioxane	98		-			50-150	-			
Trichloroethene	94		-			70-130	-			
2,2,4-Trimethylpentane	102		-			70-130	-			
cis-1,3-Dichloropropene	93		-			70-130	-			
4-Methyl-2-pentanone	97		-			70-130	-			
trans-1,3-Dichloropropene	81		-			70-130	-			
1,1,2-Trichloroethane	94		-			70-130	-			
Toluene	93		-			70-130	-			
2-Hexanone	96		-			70-130	-			



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1831651

arameter	LCS %Recovery	Qual %	LCSI %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM - Ma	nsfield Lab Associ	ated sample(s):	01-07	Batch:	WG1147	478-3			
Dibromochloromethane	105		-			70-130	-		
1,2-Dibromoethane	95		-			70-130	-		
Tetrachloroethene	98		-			70-130	-		
Chlorobenzene	97		-			70-130	-		
Ethylbenzene	97		-			70-130	-		
p/m-Xylene	99		-			70-130	-		
Bromoform	107		-			70-130	-		
Styrene	99		-			70-130	-		
1,1,2,2-Tetrachloroethane	101		-			70-130	-		
o-Xylene	102		-			70-130	-		
1,2,3-Trichloropropane <sup>1</sup>	93		-			70-130	-		
Bromobenzene <sup>1</sup>	94		-			70-130	-		
1,3,5-Trimethylbenzene	107		-			70-130	-		
1,2,4-Trimethylbenzene	113		-			70-130	-		
Benzyl chloride	103		-			70-130	-		
1,3-Dichlorobenzene	112		-			70-130	-		
1,4-Dichlorobenzene	112		-			70-130	-		
1,2-Dichlorobenzene	116		-			70-130	-		
1,2,4-Trichlorobenzene	120		-			50-150	-		
Naphthalene	109		-			50-150	-		
1,2,3-Trichlorobenzene	116		-			70-130	-		
Hexachlorobutadiene	140		-			50-150	-		



# Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1831651

Report Date:

08/20/18

arameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
CP Volatile Organics in Air by SIM - Mansfield Lab 30618-2	Associated sample(s):	01-07 QC Batch ID:	WG1147478-5	QC Sample	e: L1831651-02 Client ID: Q1-
Vinyl chloride	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Acetone	5.47	5.42	ppbV	1	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Chloroform	0.027	0.027	ppbV	0	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	0.108	0.106	ppbV	2	25
Carbon tetrachloride	0.070	0.070	ppbV	0	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25



# Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1831651

					RPD
arameter	Native Sample	Duplicate Sample	Units	RPD	Qual Limits
ICP Volatile Organics in Air by SIM - Mansfield Lab 80618-2	Associated sample(s):	01-07 QC Batch ID:	WG1147478-5	QC Sample	e: L1831651-02 Client ID: Q1-
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.211	0.215	ppbV	2	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.043	0.043	ppbV	0	25
p/m-Xylene	0.112	0.112	ppbV	0	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	0.041	0.042	ppbV	2	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Naphthalene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25



Lab Number: L1831651

**Report Date:** 08/20/18

# **Canister and Flow Controller Information**

			Media Type	Date	Bottle	Cleaning	Can Leak			Flow Controler	Flow Out	Flow In	0/ DDD
Samplenum	Client ID	Media ID		Prepared	Order	Batch ID	Check	(in. Hg)	(in. Hg)	Leak Chk	mL/min	mL/min	% KPD
L1831651-01	Q1-080618-1	0044	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	3.6	9
L1831651-01	Q1-080618-1	2257	6.0L Can	08/03/18	269580	L1829262-01	Pass	-29.5	-5.1	-	-	-	-
L1831651-02	Q1-080618-2	0850	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	3.7	11
L1831651-02	Q1-080618-2	1623	6.0L Can	08/03/18	269580	L1825241-01	Pass	-29.8	-7.5	-	-	-	
L1831651-03	B1-080618	0963	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	3.5	6
L1831651-03	B1-080618	970	6.0L Can	08/03/18	269580	L1827325-02	Pass	-29.7	-6.6	-	-	-	-
L1831651-04	W1-080618	0335	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	2.9	13
L1831651-04	W1-080618	1524	6.0L Can	08/03/18	269580	L1825420-03	Pass	-29.7	-11.5	-	-	-	-
L1831651-05	H1-080618	0206	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	3.8	14
L1831651-05	H1-080618	705	6.0L Can	08/03/18	269580	L1825927-01	Pass	-29.7	-7.1	-	-	-	-
L1831651-06	W2-080618	0114	Flow 5	08/03/18	269580		-	-	-	Pass	3.2	3.6	12
L1831651-06	W2-080618	1631	6.0L Can	08/03/18	269580	L1825504-02	Pass	-29.7	-7.0	-	-	-	-
L1831651-07	B-080618	0834	Flow 5	08/03/18	269580		-	-	-	Pass	3.2	3.4	6
L1831651-07	B-080618	1704	6.0L Can	08/03/18	269580	L1825927-02	Pass	-29.7	-29.4	-	-	-	



Project Name:

Project Number: 101869.00

BAW - WEYMOUTH FORE RIVER

L1825241

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/03/18 18:54

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825241

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825241

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location:

Field Prep: Not Specified

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825241

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825241

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution Factor Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	91		60-140



L1825241

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM 07/05/18 15:49 Analytical Date:

Analyst: MB

	ppbV			ug/m3			Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results         RL           sfield Lab         ND         0.200           ND         0.200         ND         0.050           ND         0.020         ND         0.020           ND         0.020         ND         0.100           ND         0.100         ND         1.00           ND         0.500         ND         0.500           ND         0.020         ND         0.050           ND         0.050         ND         0.020           ND         0.020         ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.500          ND         0.020            ND         0.050          ND         0.020            ND         0.020          ND         0.020	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1825241

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825241

Project Number: CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825241-01

Client ID: CAN 1623 SHELF 41

Sample Location:

Date Collected:

07/02/18 16:00

Date Received: 07/03/18

Field Prep: Not Specified

• •		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Nansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140



L1825420

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/05/18 16:43

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825420

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825420

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825420

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep:

оатріє Берпі.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	b							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825420

Project Number: CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825420-03

Client ID: CAN 1524 SHELF 53

Sample Location:

Date Collected:

07/03/18 16:00

Date Received:

07/05/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140



L1825420

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 18:46

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825420

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825420

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Campic Dopin.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	91		60-140



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 07/05/18 18:00 Analytical Date:

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Foluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab

Lab Number: L1825504

Project Number: CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825504-02

Client ID: CAN 1631 SHELF 58

Sample Location:

Date Collected:

07/05/18 09:00

Date Received:

07/05/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 19:56

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825504

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825504

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Campic Dopin.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	91		60-140



L1825927

07/09/18 16:00

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-01

Date Collected: Client ID: **CAN 705 SHELF 56** 

Sample Location:

Date Received: 07/10/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 07/11/18 22:10 Analytical Date:

Analyst: RY

	ppbV			ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: CAN 705 SHELF 56 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

Затріе Беріт.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1
Bromodichloromethane	ND	0.200		ND	1.34			1



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: **CAN 705 SHELF 56** Date Received: 07/10/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield L	_ab							
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1
Nonane	ND	0.200		ND	1.05			1



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: **CAN 705 SHELF 56** Date Received: 07/10/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-IsopropyItoluene	ND	0.200		ND	1.10			1
,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825927

Project Number: CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-01

Client ID: CAN 705 SHELF 56

Sample Location:

Date Collected:

07/09/18 16:00

Date Received:

07/10/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	1.8	NJ	Vdqq		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: CAN 705 SHELF 56 Date Received:

Sample Location:

07/10/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/12/18 16:08

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	l - Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

# **Air Canister Certification Results**

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: **CAN 705 SHELF 56** Date Received: 07/10/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825927

Project Number: CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-01

Client ID: CAN 705 SHELF 56

Date Collected: 07/09/18 16:00 Date Received: 07/10/18

Field Prep: Not Specified

Sample Depth:

Sample Location:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	90		60-140



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/11/18 22:48

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
/inyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
,1-Dichloroethene	ND	0.200		ND	0.793			1
Fertiary butyl Alcohol	ND	0.500		ND	1.52			1



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
rans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
/inyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Fetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
,1,1-Trichloroethane	ND	0.200		ND	1.09			1
,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
ert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1
Bromodichloromethane	ND	0.200		ND	1.34			1



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
,1,2-Trichloroethane	ND	0.200		ND	1.09			1
oluene	ND	0.200		ND	0.754			1
,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1
Nonane	ND	0.200		ND	1.05			1



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1825927

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: **CAN 1704 SHELF 57** Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140



L1825927

Not Specified

Lab Number:

Field Prep:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location:

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/12/18 16:42

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825927

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1825927

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

Campic Dopin.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140



L1827325

07/17/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1827325-02

Client ID: CAN 970 SHELF 52 Date Received:

Sample Location:

Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/18/18 11:09

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827325

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: CAN 970 SHELF 52 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827325

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: CAN 970 SHELF 52 Date Received: 07/18/18

Sample Location: Field Prep:

Запре Верш.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827325

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

## **Air Canister Certification Results**

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: CAN 970 SHELF 52 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

оапріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ıb							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
ec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1827325

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

**Air Canister Certification Results** 

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: **CAN 970 SHELF 52** Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	83		60-140



L1827325

07/17/18 16:00

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

## **Air Canister Certification Results**

Lab ID: L1827325-02

Date Collected: Client ID: CAN 970 SHELF 52 Date Received:

Sample Location:

07/18/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/18/18 11:09

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827325

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

# **Air Canister Certification Results**

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: CAN 970 SHELF 52 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L1827325

Project Number: CANISTER QC BAT Report Date: 08/20/18

# **Air Canister Certification Results**

Lab ID: L1827325-02

Client ID: CAN 970 SHELF 52

Sample Location:

Date Collected:

07/17/18 16:00

Date Received:

07/18/18

Field Prep:

Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	84		60-140



L1829262

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

# **Air Canister Certification Results**

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/30/18 19:53

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1829262

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

# **Air Canister Certification Results**

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location:

Field Prep: Not Specified

Запріє Веріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1829262

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

# **Air Canister Certification Results**

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location: Field Prep:

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1829262

Not Specified

Lab Number:

Field Prep:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

# **Air Canister Certification Results**

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location:

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1829262

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

# **Air Canister Certification Results**

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	98		60-140



L1829262

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/20/18

# **Air Canister Certification Results**

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/30/18 19:53

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	ND         0.200           ND         0.200           ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         1.00           ND         0.500           ND         0.500           ND         0.500           ND         0.050           ND         0.050           ND         0.020           ND         0.020	Results         RL         MDL           sfield Lab         ND         0.200            ND         0.200          ND         0.050            ND         0.020          ND         0.020            ND         0.020          ND         0.020            ND         0.100          ND         0.050            ND         0.050          ND         0.020            ND         0.0500          ND         0.020            ND         0.020          ND         0.02	Results         RL         MDL         Results           sfield Lab         ND         0.200          ND           ND         0.200          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020 <td>Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND</td> <td>Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079         <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<></td>	Results         RL         MDL         Results         RL           Sfield Lab         ND         0.989         ND         0.989           ND         0.200          ND         0.413           ND         0.050          ND         0.349           ND         0.020          ND         0.051           ND         0.020          ND         0.044           ND         0.020          ND         0.078           ND         0.100          ND         0.264           ND         1.00          ND         0.264           ND         1.00          ND         0.281           ND         0.050          ND         0.281           ND         0.500          ND         1.09           ND         0.500          ND         0.079           ND         0.050          ND         0.383           ND         0.020          ND         0.079           ND         0.020          ND         0.072           ND	Results         RL         MDL         Results         RL         MDL           Sfield Lab         ND         0.200          ND         0.989            ND         0.200          ND         0.413            ND         0.050          ND         0.349            ND         0.050          ND         0.051            ND         0.020          ND         0.051            ND         0.020          ND         0.044            ND         0.020          ND         0.044            ND         0.020          ND         0.078            ND         0.100          ND         0.264            ND         0.100          ND         0.281            ND         0.050          ND         0.079            ND         0.500          ND         0.079            ND         0.050          ND         0.079 <t< td=""><td>Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989   </td></t<>	Results         RL         MDL         Results         RL         MDL         Qualifier           Sfield Lab         ND         0.200          ND         0.989



L1829262

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

# **Air Canister Certification Results**

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: CAN 2257 SHELF 56 Date Received: 07/30/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1829262

**Project Number:** CANISTER QC BAT **Report Date:** 08/20/18

# **Air Canister Certification Results**

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: CAN 2257 SHELF 56 Date Received:

07/30/18 Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	99		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1831651

**Project Number:** 101869.00 **Report Date:** 08/20/18

# Sample Receipt and Container Information

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal

N/A Absent

Container Info	rmation		Initial	Final	Temp		Frozen	
Container ID	Container Type	Cooler	рН	рН	deg C Pres	Seal	Date/Time	Analysis(*)
L1831651-01A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1831651-02A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1831651-03A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1831651-04A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1831651-05A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1831651-06A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1831651-07A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:08/20/18

## **GLOSSARY**

## **Acronyms**

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case

estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable.

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MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the

precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample is toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

## **Footnotes**

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

## Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:08/20/18

#### Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- **ND** Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:08/20/18

## REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

## **LIMITATION OF LIABILITIES**

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



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Revision 11

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Alpha Analytical, Inc.
Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

# **Certification Information**

## Westborough Facility

EPA 624: m/p-xylene, o-xylene

**EPA 8260C:** <u>NPW</u>: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; <u>SCM</u>: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: <u>DW:</u> Bromide EPA 6860: <u>SCM:</u> Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

The following analytes are not included in our Primary NELAP Scope of Accreditation:

# Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

## The following analytes are included in our Massachusetts DEP Scope of Accreditation

#### Westborough Facility:

## **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

## Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

**EPA 608**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.

## **Mansfield Facility:**

## Drinking Water

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

## Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

**EPA 245.1** Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Document Type: Form Pre-Qualtrax Document ID: 08-113

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## ANALYTICAL REPORT

Lab Number: L1832609

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 08/27/18

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



**Project Number:** 101869.00 Lab Number: L1832609

Report Date: 08/27/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1832609-01	Q1081218-1	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 10:13	08/20/18
L1832609-02	Q1081218-2	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 10:14	08/20/18
L1832609-03	B1081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 10:50	08/20/18
L1832609-04	W1081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 11:07	08/20/18
L1832609-05	H1081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 11:37	08/20/18
L1832609-06	W2081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 11:57	08/20/18
L1832609-07	B081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 00:00	08/20/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

**Project Number:** 101869.00 **Report Date:** 08/27/18

## **MADEP MCP Response Action Analytical Report Certification**

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A re	sponse to questions G, H and I is required for "Presumptive Certainty" status	
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
ı	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



**Project Name: BAW - WEYMOUTH FORE RIVER** Lab Number: L1832609 **Project Number:** 101869.00 08/27/18

**Report Date:** 

## **Case Narrative**

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

## **HOLD POLICY**

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1832609Project Number:101869.00Report Date:08/27/18

## Case Narrative (continued)

MCP Related Narratives

Canisters were released from the laboratory on August 10, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1832609-03 and -07: The canister vacuum measured on receipt at the laboratory was > 15 in. Hg. The canister was pressurized with UHP nitrogen to facilitate transfer of sample for analysis. The reporting limits have been elevated accordingly.

## Sample Receipt

The sample designated B1081218 (L1832609-03) had a RPD for the pre- and post-flow controller calibration check (200% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 3.3 mL/minute; the final flow rate was 0.0mL/minute. The final pressure recorded by the laboratory of the associated canister was -19.4 inches of mercury.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative Date: 08/27/18

Christopher J. Anderson

ANALYTICAL

# **AIR**



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

# SAMPLE RESULTS

Lab ID: L1832609-01

Client ID: Q1081218-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:13 Date Received: 08/20/18

Date Received: 08/20/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 18:30

Analyst: GJ

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	1.46	1.00		3.47	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.023	0.020		0.112	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.067	0.020		0.421	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

# **SAMPLE RESULTS**

Lab ID: L1832609-01 Client ID: Q1081218-1

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:13

Date Received: 08/20/18

Field Prep: Not Specified

# Sample Depth:

Sample Location:

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
Toluene	0.050	0.050		0.188	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	0.020	0.020		0.207	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Acetaldehyde	1.10		ppbV		1
Unknown	1.76		ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.61		ppbV		1



L1832609

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 Report Date: 08/27/18

**SAMPLE RESULTS** 

Lab ID: L1832609-01

Client ID: Q1081218-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:13

Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	99		60-140



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

# SAMPLE RESULTS

Lab ID: L1832609-02

Client ID: Q1081218-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: (

08/13/18 10:14

Date Received: Field Prep:

08/20/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 19:48

Analyst: GJ

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	1.42	1.00		3.37	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.024	0.020		0.117	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.070	0.020		0.440	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

# **SAMPLE RESULTS**

Lab ID: L1832609-02 Client ID: Q1081218-2

Client ID: Q1081218-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:14

Date Received: 08/20/18

Field Prep: Not Specified

	ppbV			ug/m3			Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
/I - Mansfield	Lab						
0.103	0.050		0.388	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
ND	0.040		ND	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
0.060	0.050		0.315	0.262			1
ND	0.050		ND	0.533			1
	M - Mansfield  0.103  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results         RL           M - Mansfield Lab           0.103         0.050           ND         0.020           ND         0.020           ND         0.100           ND         0.020           ND         0.050           0.060         0.050	Results         RL         MDL           M - Mansfield Lab         0.103         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            ND         0.020            ND         0.050            0.060         0.050	Results         RL         MDL         Results           M - Mansfield Lab         0.103         0.050          0.388           ND         0.020          ND           ND         0.050          ND           0.060         0.050          0.315	Results         RL         MDL         Results         RL           M - Mansfield Lab         0.103         0.050          0.388         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           ND         0.020          ND         0.087           ND         0.040          ND         0.174           ND         0.020          ND         0.087           ND         0.020          ND         0.085           ND         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120           ND         0.020          ND         0.120 <td>Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         0.103         0.050          0.388         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120<td>Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab           0.103         0.050          0.388         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020        </td></td>	Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         0.103         0.050          0.388         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.020          ND         0.207            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020          ND         0.120 <td>Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab           0.103         0.050          0.388         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020        </td>	Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab           0.103         0.050          0.388         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120            ND         0.020

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown siloxane	3.95		ppbV		1
Unknown	2.77		ppbV		1
Unknown	1.29		ppbV		1
Silanol, Trimethyl-	36.0		ppbV		1
Cyclopentane, Methyl-	1.14		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

**Project Number:** 101869.00 **Report Date:** 08/27/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 08/13/18 10:14

Client ID: Q1081218-2 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	13.4		ppbV		1
Unknown	5.08		ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	103		60-140



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

# **SAMPLE RESULTS**

Lab ID: L1832609-03 D

Client ID: B1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:50 Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 20:27

Analyst: GJ

MCP Volatile Organics in Air by SIM - Mansfield Lab           Winyl chloride         ND         0.039          ND         0.099          1.9           Bromomethane         ND         0.039          ND         0.151          1.9           Acetone         ND         1.94          ND         0.154          1.9           Acetone         ND         0.039          ND         0.154          1.9           I,1-Dichloroethene         ND         0.039          ND         0.154          1.9           Itans-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           I,1-Dichloroethane         ND         0.039          ND         0.157          1.9           Methyl tert butyl ether         ND         0.388          ND         0.157          1.9           2-Butanone         ND         0.970          ND         0.154          1.9           2-Butanone         ND         0.039          ND         0.154			ppbV			ug/m3			Dilution	
Vinyl chloride         ND         0.039          ND         0.099          1.9           Bromomethane         ND         0.039          ND         0.151          1.9           Acetone         ND         1.94          ND         0.154          1.9           1,1-Dichloroethene         ND         0.039          ND         0.154          1.9           Methylene chloride         ND         0.970          ND         3.37          1.9           trans-1,2-Dichloroethane         ND         0.039          ND         0.154          1.9           1,1-Dichloroethane         ND         0.039          ND         0.157          1.9           Methyl tert butyl ether         ND         0.388          ND         1.40          1.9           2-Butanone         ND         0.970          ND         2.86          1.9           cis-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           Chloroform	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
Bromomethane         ND         0.039          ND         0.151          1.9           Acetone         ND         1.94          ND         4.61          1.9           1,1-Dichloroethene         ND         0.039          ND         0.154          1.9           Methylene chloride         ND         0.970          ND         3.37          1.9           trans-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           1,1-Dichloroethane         ND         0.039          ND         0.157          1.9           Methyl tert butyl ether         ND         0.388          ND         1.40          1.9           2-Butanone         ND         0.970          ND         2.86          1.9           cis-1,2-Dichloroethane         ND         0.039          ND         0.189          1.9           Chloroform         ND         0.039          ND         0.157          1.9           1,1-1-Trichloroethane	MCP Volatile Organics in Air by SII	M - Mansfield	Lab							
Acetone         ND         1.94          ND         4.61          1.9           1,1-Dichloroethene         ND         0.039          ND         0.154          1.9           Methylene chloride         ND         0.970          ND         3.37          1.9           trans-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           1,1-Dichloroethane         ND         0.039          ND         0.157          1.9           Methyl tert butyl ether         ND         0.388          ND         1.40          1.9           2-Butanone         ND         0.970          ND         2.86          1.9           cis-1,2-Dichloroethane         ND         0.039          ND         0.154          1.9           Chloroform         ND         0.039          ND         0.157          1.9           Chloroformethane         ND         0.039          ND         0.157          1.9           1,1-Trichloroethane <td>Vinyl chloride</td> <td>ND</td> <td>0.039</td> <td></td> <td>ND</td> <td>0.099</td> <td></td> <td></td> <td>1.941</td>	Vinyl chloride	ND	0.039		ND	0.099			1.941	
1,1-Dichloroethene         ND         0.039          ND         0.154          1.9           Methylene chloride         ND         0.970          ND         3.37          1.9           trans-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           1,1-Dichloroethane         ND         0.039          ND         0.157          1.9           Methyl tert butyl ether         ND         0.388          ND         1.40          1.9           Z-Butanone         ND         0.970          ND         2.86          1.9           Cis-1,2-Dichloroethane         ND         0.039          ND         0.154          1.9           Chloroform         ND         0.039          ND         0.189          1.9           1,2-Dichloroethane         ND         0.039          ND         0.157          1.9           1,1-1-Trichloroethane         ND         0.039          ND         0.620          1.9           1,1-	Bromomethane	ND	0.039		ND	0.151			1.941	
Methylene chloride         ND         0.970          ND         3.37          1.9           trans-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           1,1-Dichloroethane         ND         0.039          ND         0.157          1.9           Methyl tert butyl ether         ND         0.388          ND         1.40          1.9           2-Butanone         ND         0.970          ND         2.86          1.9           cis-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           Chloroform         ND         0.039          ND         0.154          1.9           1,2-Dichloroethane         ND         0.039          ND         0.157          1.9           1,1,1-Trichloroethane         ND         0.039          ND         0.620          1.9           1,2-Dichloroptopane         ND         0.194          ND         0.620          1.9           1,2	Acetone	ND	1.94		ND	4.61			1.941	
trans-1,2-Dichloroethene	1,1-Dichloroethene	ND	0.039		ND	0.154			1.941	
1,1-Dichloroethane         ND         0.039          ND         0.157          1.9           Methyl tert butyl ether         ND         0.388          ND         1.40          1.9           2-Butanone         ND         0.970          ND         2.86          1.9           cis-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           Chloroform         ND         0.039          ND         0.189          1.9           Chloroform         ND         0.039          ND         0.157          1.9           1,2-Dichloroethane         ND         0.039          ND         0.212          1.9           Benzene         ND         0.194          ND         0.620          1.9           Carbon tetrachloride         0.087         0.039          ND         0.179          1.9           Bromodichloropropane         ND         0.039          ND         0.179          1.9           1,4-Dioxane	Methylene chloride	ND	0.970		ND	3.37			1.941	
Methyl tert butyl ether         ND         0.388          ND         1.40          1.9           2-Butanone         ND         0.970          ND         2.86          1.9           cis-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           Chloroform         ND         0.039          ND         0.189          1.9           1,2-Dichloroethane         ND         0.039          ND         0.157          1.9           1,1,1-Trichloroethane         ND         0.039          ND         0.212          1.9           Benzene         ND         0.194          ND         0.620          1.9           Carbon tetrachloride         0.087         0.039          ND         0.179          1.9           1,2-Dichloropropane         ND         0.039          ND         0.179          1.9           Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane<	trans-1,2-Dichloroethene	ND	0.039		ND	0.154			1.941	
2-Butanone         ND         0.970          ND         2.86          1.9           cis-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           Chloroform         ND         0.039          ND         0.189          1.9           1,2-Dichloroethane         ND         0.039          ND         0.157          1.9           1,1,1-Trichloroethane         ND         0.039          ND         0.212          1.9           Benzene         ND         0.194          ND         0.620          1.9           Carbon tetrachloride         0.087         0.039          ND         0.549         0.244          1.9           1,2-Dichloropropane         ND         0.039          ND         0.179          1.9           Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane         ND         0.194          ND         0.699          1.9	1,1-Dichloroethane	ND	0.039		ND	0.157			1.941	
cis-1,2-Dichloroethene         ND         0.039          ND         0.154          1.9           Chloroform         ND         0.039          ND         0.189          1.9           1,2-Dichloroethane         ND         0.039          ND         0.157          1.9           1,1,1-Trichloroethane         ND         0.039          ND         0.212          1.9           Benzene         ND         0.194          ND         0.620          1.9           Carbon tetrachloride         0.087         0.039          ND         0.179          1.9           1,2-Dichloropropane         ND         0.039          ND         0.179          1.9           Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane         ND         0.194          ND         0.699          1.9           Trichloroethene         ND         0.039          ND         0.209          1.9           cis-1,3-Dichlorop	Methyl tert butyl ether	ND	0.388		ND	1.40			1.941	
Chloroform         ND         0.039          ND         0.189          1.9           1,2-Dichloroethane         ND         0.039          ND         0.157          1.9           1,1,1-Trichloroethane         ND         0.039          ND         0.212          1.9           Benzene         ND         0.194          ND         0.620          1.9           Carbon tetrachloride         0.087         0.039          ND         0.179          1.9           1,2-Dichloropropane         ND         0.039          ND         0.179          1.9           Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane         ND         0.194          ND         0.699          1.9           Trichloroethene         ND         0.039          ND         0.209          1.9           cis-1,3-Dichloropropene         ND         0.039          ND         0.176          1.9           4-Methyl-2-penta	2-Butanone	ND	0.970		ND	2.86			1.941	
1,2-Dichloroethane         ND         0.039          ND         0.157          1.9           1,1,1-Trichloroethane         ND         0.039          ND         0.212          1.9           Benzene         ND         0.194          ND         0.620          1.9           Carbon tetrachloride         0.087         0.039          ND         0.244          1.9           1,2-Dichloropropane         ND         0.039          ND         0.179          1.9           Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane         ND         0.194          ND         0.699          1.9           Trichloroethene         ND         0.039          ND         0.209          1.9           4-Methyl-2-pentanone         ND         0.970          ND         3.98          1.9	cis-1,2-Dichloroethene	ND	0.039		ND	0.154			1.941	
1,1,1-Trichloroethane         ND         0.039          ND         0.212          1.9           Benzene         ND         0.194          ND         0.620          1.9           Carbon tetrachloride         0.087         0.039          0.549         0.244          1.9           1,2-Dichloropropane         ND         0.039          ND         0.179          1.9           Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane         ND         0.194          ND         0.699          1.9           Trichloroethene         ND         0.039          ND         0.209          1.9           4-Methyl-2-pentanone         ND         0.970          ND         3.98          1.9	Chloroform	ND	0.039		ND	0.189			1.941	
Benzene         ND         0.194          ND         0.620          1.9           Carbon tetrachloride         0.087         0.039          0.549         0.244          1.9           1,2-Dichloropropane         ND         0.039          ND         0.179          1.9           Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane         ND         0.194          ND         0.699          1.9           Trichloroethene         ND         0.039          ND         0.209          1.9           cis-1,3-Dichloropropene         ND         0.039          ND         0.176          1.9           4-Methyl-2-pentanone         ND         0.970          ND         3.98          1.9	1,2-Dichloroethane	ND	0.039		ND	0.157			1.941	
Carbon tetrachloride         0.087         0.039          0.549         0.244          1.9           1,2-Dichloropropane         ND         0.039          ND         0.179          1.9           Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane         ND         0.194          ND         0.699          1.9           Trichloroethene         ND         0.039          ND         0.209          1.9           cis-1,3-Dichloropropene         ND         0.039          ND         0.176          1.9           4-Methyl-2-pentanone         ND         0.970          ND         3.98          1.9	1,1,1-Trichloroethane	ND	0.039		ND	0.212			1.941	
1,2-Dichloropropane         ND         0.039          ND         0.179          1.9           Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane         ND         0.194          ND         0.699          1.9           Trichloroethene         ND         0.039          ND         0.209          1.9           cis-1,3-Dichloropropene         ND         0.039          ND         0.176          1.9           4-Methyl-2-pentanone         ND         0.970          ND         3.98          1.9	Benzene	ND	0.194		ND	0.620			1.941	
Bromodichloromethane         ND         0.039          ND         0.260          1.9           1,4-Dioxane         ND         0.194          ND         0.699          1.9           Trichloroethene         ND         0.039          ND         0.209          1.9           cis-1,3-Dichloropropene         ND         0.039          ND         0.176          1.9           4-Methyl-2-pentanone         ND         0.970          ND         3.98          1.9	Carbon tetrachloride	0.087	0.039		0.549	0.244			1.941	
1,4-Dioxane       ND       0.194        ND       0.699        1.9         Trichloroethene       ND       0.039        ND       0.209        1.9         cis-1,3-Dichloropropene       ND       0.039        ND       0.176        1.9         4-Methyl-2-pentanone       ND       0.970        ND       3.98        1.9	1,2-Dichloropropane	ND	0.039		ND	0.179			1.941	
Trichloroethene         ND         0.039          ND         0.209          1.9           cis-1,3-Dichloropropene         ND         0.039          ND         0.176          1.9           4-Methyl-2-pentanone         ND         0.970          ND         3.98          1.9	Bromodichloromethane	ND	0.039		ND	0.260			1.941	
cis-1,3-Dichloropropene ND 0.039 ND 0.176 1.9 4-Methyl-2-pentanone ND 0.970 ND 3.98 1.9	1,4-Dioxane	ND	0.194		ND	0.699			1.941	
4-Methyl-2-pentanone ND 0.970 ND 3.98 1.9	Trichloroethene	ND	0.039		ND	0.209			1.941	
	cis-1,3-Dichloropropene	ND	0.039		ND	0.176			1.941	
	4-Methyl-2-pentanone	ND	0.970		ND	3.98			1.941	
trans-1,3-Dichloropropene ND 0.039 ND 0.176 1.9	trans-1,3-Dichloropropene	ND	0.039		ND	0.176			1.941	
1,1,2-Trichloroethane ND 0.039 ND 0.212 1.9	1,1,2-Trichloroethane	ND	0.039		ND	0.212			1.941	



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

# **SAMPLE RESULTS**

Lab ID: L1832609-03 D

Client ID: B1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:50

Date Received: 08/20/18

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.105	0.097		0.396	0.366			1.941
Dibromochloromethane	ND	0.039		ND	0.331			1.941
1,2-Dibromoethane	ND	0.039		ND	0.298			1.941
Tetrachloroethene	ND	0.039		ND	0.263			1.941
Chlorobenzene	ND	0.194		ND	0.893			1.941
Ethylbenzene	ND	0.039		ND	0.169			1.941
o/m-Xylene	ND	0.078		ND	0.337			1.941
Bromoform	ND	0.039		ND	0.401			1.941
Styrene	ND	0.039		ND	0.165			1.941
1,1,2,2-Tetrachloroethane	ND	0.039		ND	0.266			1.941
o-Xylene	ND	0.039		ND	0.169			1.941
1,3-Dichlorobenzene	ND	0.039		ND	0.233			1.941
1,4-Dichlorobenzene	ND	0.039		ND	0.233			1.941
1,2-Dichlorobenzene	ND	0.039		ND	0.233			1.941
1,2,4-Trichlorobenzene	ND	0.097		ND	0.720			1.941
Naphthalene	ND	0.097		ND	0.509			1.941
Hexachlorobutadiene	ND	0.097		ND	1.03			1.941

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	2.80		ppbV		1.941
Silanol, Trimethyl-	2.44		ppbV		1.941
Unknown	3.42		ppbV		1.941



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

**Project Number:** 101869.00 **Report Date:** 08/27/18

SAMPLE RESULTS

Lab ID: L1832609-03 D

Client ID: B1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:50

Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	99		60-140



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

# SAMPLE RESULTS

Lab ID: L1832609-04

Client ID: W1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/13/18 11:07

Date Received: Field Prep:

08/20/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 21:06

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	1.18	1.00		2.80	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.023	0.020		0.112	0.098			1
1,2-Dichloroethane	0.021	0.020		0.085	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.078	0.020		0.491	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

# **SAMPLE RESULTS**

Lab ID: L1832609-04 Client ID: W1081218

Date Collected:

08/13/18 11:07

Sample Location:

QUINCY WEYMOUTH BRAINTREE

Date Received: 08/20/18
Field Prep: Not Specified

Campio Bopaii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Toluene	0.087	0.050		0.328	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	0.025	0.020		0.258	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	5.15		ppbV		1
Unknown	1.42		ppbV		1
Silanol, Trimethyl-	1.62		ppbV		1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

L1832609

**Project Number:** 101869.00 Report Date:

08/27/18

# SAMPLE RESULTS

Lab ID: L1832609-04

W1081218

Date Collected:

08/13/18 11:07

Sample Location:

QUINCY WEYMOUTH BRAINTREE

Date Received:

08/20/18

Field Prep:

Not Specified

Sample Depth:

Client ID:

**Parameter** Results ug/m3 RL

Qualifier MDL

Dilution **Factor** 

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

MDL

Units

Results

RDL

Dilution **Factor** 

**Tentatively Identified Compounds** 

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	85		60-140

ppbV

RL



Project Number: 101869.00 Lab Number:

L1832609

Report Date:

08/27/18

# **SAMPLE RESULTS**

Lab ID: L1832609-05 Client ID:

H1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Collected: Date Received: 08/13/18 11:37

Field Prep:

08/20/18 Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: Analytical Date:

101,TO-15-SIM 08/24/18 21:45

Analyst:

GJ

Parameter		ppbV			ug/m3			Dilution
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	1.33	1.00		3.16	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.025	0.020		0.122	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.067	0.020		0.421	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



Project Name: **BAW - WEYMOUTH FORE RIVER** 

Project Number: 101869.00 Lab Number:

L1832609

Report Date:

08/27/18

### **SAMPLE RESULTS**

Lab ID: L1832609-05 Client ID:

H1081218

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/13/18 11:37

Date Received: Field Prep:

08/20/18 Not Specified

Sample Depth:

Sample Location:

	ppbV		ug/m3			Dilution	
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
M - Mansfield	Lab						
ND	0.050		ND	0.188			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
ND	0.040		ND	0.174			1
0.026	0.020		0.269	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.137			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	M - Mansfield  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	Results         RL           M - Mansfield Lab           ND         0.050           ND         0.020           ND         0.020           ND         0.020           ND         0.100           ND         0.020           ND         0.040           0.026         0.020           ND         0.050           ND         0.050	Results         RL         MDL           M - Mansfield Lab         ND         0.050            ND         0.020            ND         0.020            ND         0.020            ND         0.100            ND         0.020            ND         0.040            ND         0.020            ND         0.050            ND         0.050	Results         RL         MDL         Results           M - Mansfield Lab         ND         0.050          ND           ND         0.020          ND           ND         0.020          ND           ND         0.020          ND           ND         0.100          ND           ND         0.020          ND           ND         0.040          ND           ND         0.020          ND           ND         0.050          ND           ND         0.050          ND	Results         RL         MDL         Results         RL           M - Mansfield Lab         ND         0.050          ND         0.188           ND         0.020          ND         0.170           ND         0.020          ND         0.154           ND         0.020          ND         0.136           ND         0.100          ND         0.461           ND         0.020          ND         0.087           ND         0.040          ND         0.174           0.026         0.020          ND         0.085           ND         0.020          ND         0.137           ND         0.020          ND         0.120           ND         0.050          ND         0.371	Results         RL         MDL         Results         RL         MDL           M - Mansfield Lab         ND         0.050          ND         0.188            ND         0.020          ND         0.170            ND         0.020          ND         0.154            ND         0.020          ND         0.136            ND         0.100          ND         0.461            ND         0.020          ND         0.087            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.040          ND         0.174            ND         0.020          ND         0.085            ND         0.020          ND         0.137            ND         0.020          ND         0.120            ND         0.020          ND         0.120	Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab         ND         0.050          ND         0.188             ND         0.020          ND         0.170             ND         0.020          ND         0.154             ND         0.020          ND         0.136             ND         0.100          ND         0.461             ND         0.020          ND         0.087             ND         0.040          ND         0.174             ND         0.040          ND         0.087             ND         0.020          ND         0.085             ND         0.020          ND         0.137             ND         0.020          ND         0.120

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.55		ppbV		1
Silanol, Trimethyl-	1.29		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

**Project Number:** 101869.00 **Report Date:** 08/27/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 08/13/18 11:37

Client ID: H1081218 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution

Posults Qualifier Units PDI Factor

Results Qualifier Units RDL Facto

**Tentatively Identified Compounds** 

			Acceptance
Internal Standard	% Recovery	Qualifier	Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	77		60-140
chlorobenzene-d5	82		60-140



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

#### SAMPLE RESULTS

Lab ID: L1832609-06

Client ID: W2081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 11:57 Date Received: 08/20/18

Field Prep:

Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 22:23

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Vinyl chloride	ND	0.020		ND	0.051			1
Bromomethane	ND	0.020		ND	0.078			1
Acetone	1.31	1.00		3.11	2.38			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	0.031	0.020		0.151	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.075	0.020		0.472	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

### **SAMPLE RESULTS**

Lab ID: L1832609-06 Client ID: W2081218

Sample Location: QUINCY W

QUINCY WEYMOUTH BRAINTREE

Date Collected: 0

08/13/18 11:57

Date Received: Field Prep:

08/20/18 Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	Results RL		Results RL		MDL Qualifier		Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Toluene	0.060	0.050		0.226	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	0.023	0.020		0.238	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	0.058	0.050		0.304	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Acetaldehyde	1.04		ppbV		1
Unknown	1.43		ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.89		ppbV		1
Silanol, Trimethyl-	3.18		ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

Project Number: 101869.00 Report Date: 08/27/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 08/13/18 11:57

Client ID: W2081218 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	91		60-140



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

#### **SAMPLE RESULTS**

Lab ID: L1832609-07 D

Client ID: B081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 00:00 Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 23:03

Analyst: GJ

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Vinyl chloride	ND	0.046		ND	0.118			2.302
Bromomethane	ND	0.046		ND	0.179			2.302
Acetone	8.55	2.30		20.3	5.46			2.302
1,1-Dichloroethene	ND	0.046		ND	0.182			2.302
Methylene chloride	3.86	1.15		13.4	4.00			2.302
trans-1,2-Dichloroethene	ND	0.046		ND	0.182			2.302
1,1-Dichloroethane	ND	0.046		ND	0.186			2.302
Methyl tert butyl ether	ND	0.460		ND	1.66			2.302
2-Butanone	ND	1.15		ND	3.39			2.302
cis-1,2-Dichloroethene	ND	0.046		ND	0.182			2.302
Chloroform	0.092	0.046		0.450	0.225			2.302
1,2-Dichloroethane	ND	0.046		ND	0.186			2.302
1,1,1-Trichloroethane	ND	0.046		ND	0.251			2.302
Benzene	ND	0.230		ND	0.735			2.302
Carbon tetrachloride	0.071	0.046		0.449	0.289			2.302
1,2-Dichloropropane	ND	0.046		ND	0.213			2.302
Bromodichloromethane	ND	0.046		ND	0.308			2.302
1,4-Dioxane	ND	0.230		ND	0.829			2.302
Trichloroethene	ND	0.046		ND	0.247			2.302
cis-1,3-Dichloropropene	ND	0.046		ND	0.209			2.302
4-Methyl-2-pentanone	1.26	1.15		5.16	4.71			2.302
trans-1,3-Dichloropropene	ND	0.046		ND	0.209			2.302
1,1,2-Trichloroethane	ND	0.046		ND	0.251			2.302



**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1832609

Report Date:

08/27/18

#### **SAMPLE RESULTS**

Lab ID: L1832609-07 D

Client ID: B081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 00:00

Date Received: 08/20/18
Field Prep: Not Specified

	ppbV		ug/m3			Dilution	
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
1 - Mansfield	Lab						
0.449	0.115		1.69	0.433			2.302
ND	0.046		ND	0.392			2.302
ND	0.046		ND	0.354			2.302
0.067	0.046		0.453	0.312			2.302
ND	0.230		ND	1.06			2.302
0.081	0.046		0.350	0.200			2.302
0.311	0.092		1.35	0.400			2.302
ND	0.046		ND	0.476			2.302
0.055	0.046		0.235	0.196			2.302
ND	0.046		ND	0.316			2.302
0.106	0.046		0.460	0.200			2.302
ND	0.046		ND	0.277			2.302
ND	0.046		ND	0.277			2.302
ND	0.046		ND	0.277			2.302
ND	0.115		ND	0.854			2.302
ND	0.115		ND	0.603			2.302
ND	0.115		ND	1.23			2.302
	ND 0.067 ND 0.081 0.311 ND 0.055 ND 0.106 ND ND ND	Results         RL           M - Mansfield Lab           0.449         0.115           ND         0.046           ND         0.046           ND         0.230           0.081         0.046           0.311         0.092           ND         0.046           ND         0.015           ND         0.115           ND         0.115	Results         RL         MDL           M - Mansfield Lab         0.449         0.115            ND         0.046            ND         0.046            0.067         0.046            ND         0.230            0.081         0.046            ND         0.015            ND         0.115            ND         0.115	Results         RL         MDL         Results           M - Mansfield Lab         0.449         0.115          1.69           ND         0.046          ND           ND         0.046          ND           0.067         0.046          0.453           ND         0.230          ND           0.081         0.046          0.350           0.311         0.092          1.35           ND         0.046          ND           0.055         0.046          ND           0.106         0.046          ND           ND         0.115          ND           ND         0.115          ND	Results         RL         MDL         Results         RL           M - Mansfield Lab         0.449         0.115          1.69         0.433           ND         0.046          ND         0.392           ND         0.046          ND         0.354           0.067         0.046          0.453         0.312           ND         0.230          ND         1.06           0.081         0.046          0.350         0.200           0.311         0.092          1.35         0.400           ND         0.046          ND         0.476           0.055         0.046          ND         0.316           0.106         0.046          ND         0.316           0.106         0.046          ND         0.277           ND         0.046          ND         0.277           ND         0.046          ND         0.277           ND         0.046          ND         0.277           ND         0.015          ND	Results         RL         MDL         Results         RL         MDL           A - Mansfield Lab         0.449         0.115          1.69         0.433            ND         0.046          ND         0.392            ND         0.046          ND         0.354            0.067         0.046          0.453         0.312            ND         0.230          ND         1.06            0.081         0.046          0.350         0.200            ND         0.311         0.092          1.35         0.400            ND         0.046          ND         0.476            ND         0.046          ND         0.316            ND         0.046          ND         0.200            ND         0.046          ND         0.277            ND         0.046          ND         0.277            ND         0.046	Results         RL         MDL         Results         RL         MDL         Qualifier           M - Mansfield Lab           0.449         0.115          1.69         0.433            ND         0.046          ND         0.392            ND         0.046          ND         0.354            0.067         0.046          0.453         0.312            ND         0.230          ND         1.06            0.081         0.046          0.350         0.200            0.311         0.092          1.35         0.400            ND         0.046          ND         0.476            ND         0.046          ND         0.316            ND         0.046          ND         0.200            ND         0.046          ND         0.277            ND         0.046          ND         0.277            ND         0.046

	Results	Qualifier U	nits RDL	Dilution Factor
Tentatively Identified Compounds				
n-Hexane	4.88	ļ	opbV	2.302
Furan, tetrahydro-	3.48	ı	opbV	2.302
Unknown	2.49	ı	opbV	2.302
Silanol, Trimethyl-	2.39	ı	opbV	2.302
Unknown	129	,	opbV	2.302



Project Name: BAW - WEYMOUTH FORE RIVER

101869.00

Lab Number:

L1832609

Report Date:

08/27/18

### SAMPLE RESULTS

MDL

Lab ID:

L1832609-07 D

Client ID:

Sample Location:

Project Number:

B081218

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/13/18 00:00

Date Received:

08/20/18

Field Prep:

Not Specified

Sample Depth:

**Parameter** 

ppbV RL Results

ug/m3 RL

Results

Qualifier MDL

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Ethyl Alcohol	3.20		ppbV		2.302
Cyclotrisiloxane, Hexamethyl-	3.13		ppbV		2.302

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	93		60-140



L1832609

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

**Project Number:** 101869.00 **Report Date:** 08/27/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 15:47

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Bate	h: WG1	150381-	4	
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

**Project Number:** 101869.00 **Report Date:** 08/27/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 15:47

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	150381-	-4	
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

**Project Number:** 101869.00 **Report Date:** 08/27/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 15:47

		ppbV					Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for s	ample(s):	01-07 Batch	: WG1	150381-	4	
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1832609

arameter	LCS %Recovery	Qual	LCSD %Recove		Qual	%Recovery Limits	RPD	Qual	RPD Limits	
MCP Volatile Organics in Air by SIM -	Mansfield Lab Associa	ated sample(s):	01-07	Batch:	WG115038	31-3				
Propylene	94		-			70-130	-			
Dichlorodifluoromethane	84		-			70-130	-			
Chloromethane	75		-			70-130	-			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	79		-			70-130	-			
Vinyl chloride	77		-			70-130	-			
1,3-Butadiene	80		-			70-130	-			
Bromomethane	78		-			70-130	-			
Chloroethane	78		-			70-130	-			
Ethyl Alcohol	80		-			70-130	-			
Vinyl bromide	76		-			70-130	-			
Acetone	76		-			50-150	-			
Trichlorofluoromethane	91		-			70-130	-			
iso-Propyl Alcohol	69	Q	-			70-130	-			
1,1-Dichloroethene	84		-			70-130	-			
tert-Butyl Alcohol <sup>1</sup>	72		-			70-130	-			
Methylene chloride	86		-			70-130	-			
3-Chloropropene	93		-			70-130	-			
Carbon disulfide	75		-			70-130	-			
1,1,2-Trichloro-1,2,2-Trifluoroethane	83		-			70-130	-			
trans-1,2-Dichloroethene	91		-			70-130	-			
1,1-Dichloroethane	96		-			70-130	-			
Methyl tert butyl ether	93		-			70-130	-			
Vinyl acetate	107		-			70-130	-			



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1832609

Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfi	eld Lab Associ	ated sample(s):	01-07	Batch:	WG11503	381-3			
2-Butanone	102		-			70-130	-		
cis-1,2-Dichloroethene	92		-			70-130	-		
Ethyl Acetate	94		-			70-130	-		
Chloroform	99		-			70-130	-		
Tetrahydrofuran	99		-			70-130	-		
1,2-Dichloroethane	98		-			70-130	-		
n-Hexane	94		-			70-130	-		
1,1,1-Trichloroethane	103		-			70-130	-		
Benzene	89		-			70-130	-		
Carbon tetrachloride	102		-			70-130	-		
Cyclohexane	91		-			70-130	-		
Dibromomethane <sup>1</sup>	87		-			70-130	-		
1,2-Dichloropropane	92		-			70-130	-		
Bromodichloromethane	102		-			70-130	-		
1,4-Dioxane	103		-			50-150	-		
Trichloroethene	97		-			70-130	-		
2,2,4-Trimethylpentane	101		-			70-130	-		
cis-1,3-Dichloropropene	85		-			70-130	-		
4-Methyl-2-pentanone	108		-			70-130	-		
trans-1,3-Dichloropropene	98		-			70-130	-		
1,1,2-Trichloroethane	104		-			70-130	-		
Toluene	93		-			70-130	-		
2-Hexanone	108		-			70-130	-		

# Lab Control Sample Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1832609

Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfi	ield Lab Associ	ated sample(s):	01-07	Batch:	WG1150	381-3			
Dibromochloromethane	108		-			70-130	-		
1,2-Dibromoethane	98		-			70-130	-		
Tetrachloroethene	99		-			70-130	-		
Chlorobenzene	96		-			70-130	-		
Ethylbenzene	97		-			70-130	-		
p/m-Xylene	97		-			70-130	-		
Bromoform	106		-			70-130	-		
Styrene	98		-			70-130	-		
1,1,2,2-Tetrachloroethane	102		-			70-130	-		
o-Xylene	97		-			70-130	-		
1,2,3-Trichloropropane <sup>1</sup>	95		-			70-130	-		
Bromobenzene <sup>1</sup>	92		-			70-130	-		
1,3,5-Trimethylbenzene	99		-			70-130	-		
1,2,4-Trimethylbenzene	103		-			70-130	-		
Benzyl chloride	118		-			70-130	-		
1,3-Dichlorobenzene	106		-			70-130	-		
1,4-Dichlorobenzene	106		-			70-130	-		
1,2-Dichlorobenzene	90		-			70-130	-		
1,2,4-Trichlorobenzene	112		-			50-150	-		
Naphthalene	107		-			50-150	-		
1,2,3-Trichlorobenzene	108		-			70-130	-		
Hexachlorobutadiene	109		-			50-150	-		



# Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1832609

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
ICP Volatile Organics in Air by SIM - Mansfield Lab 21081218-1	Associated sample(s):	01-07 QC Batch ID:	WG1150381-5	QC Sample	: L1832609-01 Client ID:
Vinyl chloride	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Acetone	1.46	1.46	ppbV	0	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Chloroform	0.023	0.023	ppbV	0	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.067	0.072	ppbV	7	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25



L1832609

## Lab Duplicate Analysis Batch Quality Control

**Project Name:** BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

ty Control Lab Number:

1,1,2-Trichloroethane  Toluene  Dibromochloromethane  1,2-Dibromoethane  Tetrachloroethene  Chlorobenzene  Ethylbenzene						its
1,1,2-Trichloroethane  Toluene  Dibromochloromethane  1,2-Dibromoethane  Tetrachloroethene  Chlorobenzene  Ethylbenzene	ated sample(s): 01-0/ (	QC Batch ID: WG1	150381-5 QC	Sample: L	1832609-01	Client ID:
Toluene Dibromochloromethane  1,2-Dibromoethane  Tetrachloroethene Chlorobenzene  Ethylbenzene	ND	ND	ppbV	NC	:	25
Dibromochloromethane  1,2-Dibromoethane  Tetrachloroethene  Chlorobenzene  Ethylbenzene	ND	ND I	ppbV	NC	-	25
1,2-Dibromoethane Tetrachloroethene Chlorobenzene Ethylbenzene	.050	ND I	ppbV	NC	- :	25
Tetrachloroethene Chlorobenzene Ethylbenzene	ND	ND I	ppbV	NC	- :	25
Chlorobenzene Ethylbenzene	ND	ND I	ppbV	NC		25
Ethylbenzene	ND	ND I	ppbV	NC		25
,	ND	ND I	ppbV	NC		25
	ND	ND I	ppbV	NC		25
p/m-Xylene	ND	ND I	ppbV	NC		25
Bromoform	.020	ND I	ppbV	NC		25
Styrene	ND	ND I	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND I	ppbV	NC		25
o-Xylene	ND	ND I	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND I	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND I	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND I	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND I	ppbV	NC		25
Naphthalene	ND	ND I	ppbV	NC		25
Hexachlorobutadiene	ND					



BAW - WEYMOUTH FORE RIVER L1832609

Project Number: 101869.00 Report Date: 08/27/18

### **Canister and Flow Controller Information**

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Pressure (in. Hg)		Controler Leak Chk	Flow Out mL/min	Flow In mL/min	
L1832609-01	Q1081218-1	0846	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.7	11
L1832609-01	Q1081218-1	1601	6.0L Can	08/10/18	269581	L1829418-03	Pass	-29.6	-6.2	-	-	-	-
L1832609-02	Q1081218-2	0226	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.6	9
L1832609-02	Q1081218-2	2583	6.0L Can	08/10/18	269581	L1829418-02	Pass	-29.6	-2.2	-	-	-	-
L1832609-03	B1081218	0424	Flow 4	08/10/18	269581		-	-	-	Pass	3.3	0.0	200
L1832609-03	B1081218	597	6.0L Can	08/10/18	269581	L1829418-01	Pass	-29.6	-19.4	-	-	-	-
L1832609-04	W1081218	0771	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.7	11
L1832609-04	W1081218	1972	6.0L Can	08/10/18	269581	L1830481-03	Pass	-29.5	-4.7	-	-	-	-
L1832609-05	H1081218	0364	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.6	9
L1832609-05	H1081218	1841	6.0L Can	08/10/18	269581	L1830971-01	Pass	-29.5	-4.1	-	-	-	-
L1832609-06	W2081218	0321	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.6	9
L1832609-06	W2081218	2275	6.0L Can	08/10/18	269581	L1830971-02	Pass	-29.5	-4.8	-	-	-	-
L1832609-07	B081218	0118	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.7	11
L1832609-07	B081218	1796	6.0L Can	08/10/18	269581	L1830481-02	Pass	-29.5	-22.7	-	-	-	-



Project Name:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT

Lab Number:

nber: L1829418

**Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-01

Client ID: CAN 597 SHELF 57

Sample Location:

Date Collected: 07/30/18 16:00 Date Received: 07/31/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/31/18 21:43

Analyst: RY

	ppbV			ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-01

Date Collected: 07/30/18 16:00 Client ID: **CAN 597 SHELF 57** Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
ert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-01

Date Collected: 07/30/18 16:00 Client ID: CAN 597 SHELF 57 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-01

Date Collected: 07/30/18 16:00 Client ID: CAN 597 SHELF 57 Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1829418

Project Number: CANISTER QC BAT Report Date: 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-01

Client ID: CAN 597 SHELF 57

Sample Location:

Date Collected:

07/30/18 16:00

Date Received:

07/31/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-01

Client ID: CAN 597 SHELF 57

Sample Location:

Date Collected: 07/30/18 16:00
Date Received: 07/31/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 48,TO-15-SIM Analytical Date: 07/31/18 21:43

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-01

Date Collected: 07/30/18 16:00 Client ID: **CAN 597 SHELF 57** Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1829418

**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-01

Date Collected: 07/30/18 16:00 Client ID: CAN 597 SHELF 57 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Campic Dopuii.								
		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	98		60-140



L1829418

Not Specified

Lab Number:

Field Prep:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: **CAN 2583 SHELF 58** Date Received: 07/31/18

Sample Location:

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/31/18 22:22

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: CAN 2583 SHELF 58 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: CAN 2583 SHELF 58 Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: CAN 2583 SHELF 58 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1829418

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-02

Date Collected: Client ID: **CAN 2583 SHELF 58** 

Date Received: 07/31/18

07/30/18 16:00

Field Prep: Not Specified

Sample Depth:

Sample Location:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: **CAN 2583 SHELF 58** Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/31/18 22:22

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: CAN 2583 SHELF 58 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Γoluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1829418

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: CAN 2583 SHELF 58 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Campic Dopuii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	99		60-140



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: **CAN 1601 SHELF 59** Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/31/18 23:00

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	ld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: CAN 1601 SHELF 59 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

### **Air Canister Certification Results**

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: CAN 1601 SHELF 59 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfi	eld Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Foluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: **CAN 1601 SHELF 59** Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1829418

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1829418-03

Date Collected: Client ID: **CAN 1601 SHELF 59** 

Date Received: 07/31/18 Field Prep: Not Specified

07/30/18 16:00

Sample Location:

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	95		60-140



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: **CAN 1601 SHELF 59** Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/31/18 23:00

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1829418

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: CAN 1601 SHELF 59 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Sample Depth:		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1829418

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: CAN 1601 SHELF 59 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Campic Doptii.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	101		60-140



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 08/07/18 19:21

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1830481

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: **CAN 1796 SHELF 43** Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 08/07/18 19:21

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1830481

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

Campic Doptii.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	97		60-140



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 08/07/18 20:00

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1830481

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: **CAN 1972 SHELF 44** Date Received: 08/07/18

Sample Location: Field Prep:

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
rans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
/inyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
sis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
ert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1830481

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location: Field Prep:

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1830481

Project Number: CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-03

Client ID: CAN 1972 SHELF 44

Sample Location:

Date Collected:

08/06/18 16:00

Date Received:

08/07/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

**Tentatively Identified Compounds** 

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 **CAN 1972 SHELF 44** Client ID: Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 08/07/18 20:00

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1830481

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mans	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1830481

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	97		60-140



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 08/09/18 17:41

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1830971

Not Specified

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location: Field Prep:

Запріє Веріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Foluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1830971

Project Number: CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-01

Client ID: CAN 1841 SHELF 52

Sample Location:

Date Collected:

08/08/18 16:00

Date Received:

08/09/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 08/09/18 17:41

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1830971

Project Number: CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-01

Client ID: CAN 1841 SHELF 52

Sample Location:

Date Collected:

08/08/18 16:00

Date Received:

08/09/18

Field Prep:

Not Specified

• •		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Nansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	92		60-140



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: **CAN 2275 SHELF 45** Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 08/09/18 18:16

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: **CAN 2275 SHELF 45** Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: CAN 2275 SHELF 45 Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

Запре Верш.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: CAN 2275 SHELF 45 Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbV				ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1830971

Project Number: CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-02

Client ID: CAN 2275 SHELF 45

Date Received: 08/09/18

Date Collected:

Sample Location:

Field Prep: Not Specified

08/08/18 16:00

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	2.3	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT Report Date: 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: **CAN 2275 SHELF 45** Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 08/09/18 18:16

Analyst: MB

		ppbV	ppbV		ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1830971

Lab Number:

**Project Name: BATCH CANISTER CERTIFICATION** 

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: CAN 2275 SHELF 45 Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Γoluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



**Project Name:** Lab Number: **BATCH CANISTER CERTIFICATION** L1830971

**Project Number:** CANISTER QC BAT **Report Date:** 08/27/18

# **Air Canister Certification Results**

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: CAN 2275 SHELF 45 Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

Campic Deptin.								
•		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140



Serial\_No:08271816:54 *Lab Number:* L1832609

Project Name: BAW - WEYMOUTH FORE RIVER

**Project Number:** 101869.00 **Report Date:** 08/27/18

# Sample Receipt and Container Information

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal

N/A Absent

Container Information			Initial	Final	Temp		Frozen		
Container ID	Container Type	Cooler	рН	рН	deg C Pres	s Seal	Date/Time	Analysis(*)	
L1832609-01A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)	
L1832609-02A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)	
L1832609-03A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)	
L1832609-04A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)	
L1832609-05A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)	
L1832609-06A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)	
L1832609-07A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)	



**Project Name:** Lab Number: BAW - WEYMOUTH FORE RIVER L1832609 101869.00 **Report Date: Project Number:** 08/27/18

#### GLOSSARY

#### Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

**EMPC** - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an

analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case

estimate of the concentration.

**EPA** - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable.

- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for

MS

which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the

precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEO - Toxic Equivalent: The measure of a sample is toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound

list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

#### **Footnotes**

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1832609Project Number:101869.00Report Date:08/27/18

#### Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations
  of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- $\label{eq:MCPCAM} \textbf{M} \qquad \text{-Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.}$
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- **ND** Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1832609Project Number:101869.00Report Date:08/27/18

#### REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

#### **LIMITATION OF LIABILITIES**

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:17873 Revision 11

Published Date: 1/8/2018 4:15:49 PM

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#### Certification Information

#### The following analytes are not included in our Primary NELAP Scope of Accreditation:

#### Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: DW: Bromide EPA 6860: SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

# **Mansfield Facility**

**SM 2540D: TSS** 

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

#### The following analytes are included in our Massachusetts DEP Scope of Accreditation

#### Westborough Facility:

#### **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

#### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-B, E, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM450P-B, EPA 351.1, SM4500P-B, EPA 351.1, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics, EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.

#### **Mansfield Facility:**

#### **Drinking Water**

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

#### Non-Potable Water

**EPA 200.7**: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form